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Original Communications.

ARTICLE I.—*Lanfranc of Milan. His Brief. Reduced to our Vulgar Phrase.* By JAMES NEVINS HYDE, M.D., Chicago.

The little volume before me is entitled: "A most Excellent and Learned Woorke of Chirurgerie, called, *Chirurgia Parva Lanfranci.* Lanfranke of Mylayne, his briefe, reduced from dyvers translations to our vulgar or usuall frase, and now first published in the Englyshe prynte by John Halle, Chirurgien. Who hath thereunto necessarily annexed A Table, as wel of the names of diseases and simples with their vertues, as also of all other termes of the arte opened. Very profitable for the better understanding of the same, or other like workes. And in the ende a compendious worke of Anatomie, more utile and profitable then any here tofore in the Englyshe tongue published. An Historiall Expostulation also, against the beastly abusers both of Chyrurgerie and Phisicke in our tyme. With a goodly doctrine and instruction, necessary to be marked and folowed of all true Chirurgiens. All these faithfully gathered and diligently set forth by the sayde John

Halle. Imprinted at London in Flete streate nyghe unto saint Dunstone's churche by Thomas Marshe, An. 1565."*

It is difficult to scan the distinct Black-Letter, impressed three hundred years ago upon these yellow pages, without feeling an interest in the man whose thoughts are thus conveyed to us across the arch of time. Who was he? Under what circumstances did he practice that profession, whose stores of learning have been garnered and transmitted for the use and profit of to-day?

". . . . Si quæris vultum dignoscere verum
Hos lege. Hii vere explicuere animum ;"

Reads the text beneath the engraving that represents to us his features.† This latter is crude enough. But he will not wonder overmuch, who reflects that it was completed only ninety-four years after the first book printed in England, issued from the first English press; and that forty years elapsed subsequently before the formation of a school of English engravers. The frontispiece shows us an honest, square, full-bearded, Saxon face, beneath a skull cap and hat not unlike that now worn by the warders of the Tower of London. The broad high collar and facings of the coat are apparently of taffeta. In the left hand is held one of the simples referred to in the title-page.

There is nothing in the portrait which would preclude the idea that the author of the work possessed also such physical gifts as are described in his preface as "the properties of a chirurgien: He shoulde bee of cleare and perfecte sighte, well formed in person, hole of minde and of members, sclender and tender-fingred, having a softe and stedfast hande, or, as the common sentence is, a chirurgien shoulde have three dyvers properties in hys person, that is to saie, a harte as the harte of a lyon, his eies like the eies of an hawke, and his handes as the handes of a woman." Were these the "properties" of all the surgeons of the 19th century, their fame and features might be preserved for as many hundred years as those of Maister John Hall.

* This rare and curious specimen of the medical literature of the 16th century is the property of Dr. Charles Gilman Smith, of this city, and was recently procured by him of an antiquary in London.

† This engraving has been several times copied as an interesting evidence of the infancy of the art at that period. It is very accurately reproduced in Sargent's Collection.

The England in which our author "diligently set forth his compendious worke," was far different from the England of this decade. That England awaited the dawning of a light that was to enliven science, literature, art and religion with its vivid beams. But the year 1565 knew only of the darkness that precedes the dawn, although a few struggling rays had already brightened its horizon. The glory of the reign of Elizabeth had yet to be declared. The eyes of the baby, William Shakspeare, looked out wonderingly upon the placid waters of the Avon. Protestantism and Catholocism were alike intolerant and aggressive. Ten years before, Hugh Latimer had walked to the stake with Coverdale's bible clasped to his girdle. The author of the Faerie Queene was a student twelve years of age. In Italy, Galileo had but just signed his renunciation of the Copernican theory. French was the language of the English court and nobility. English was indeed, as our author terms it, "the vulgar or usuall frase," and was read or written by few of those who spoke it. Surgeons were still licensed to practice by the Bishops of the Established Church — a fact indirectly confirmed by the text before us:

" . . if none but the learned and experte myght have wrought and they also admitted by the byshop: as it hath in tymes past been holsomlye ordeyned in this Realme."

This responsibility was, however, imposed soon after this date upon the College of Physicians of London, which was founded by Thomas Linacre, of Canterbury, physician to Henry the VIII, the Queen's father. Linacre was himself also an author, and published the first work in the Latin language which was issued from an English press. He also established a chair of Hippocratic and Galenical medicine in the Universities of Oxford and Cambridge.

It is evident that some organization of the regular practitioners of surgery, in London and its vicinity, had been at this time effected.* The "Epistle Dedicatorie," of the volume before us, is "Unto the Worshipful, the maisters, wardens, and consequently to all the whole company and brotherhod of Chirurgiens of London," wherein they are bidden to "bee thankefull to maister William

* The Company of Barbers of London, and the Company of Surgeons of London, were united in the year 1540, under the title of the "Masters and Governors of the Mystery and Commonalty of the Barbers and Surgeons of London." The Company of Surgeons of London dates from the year 1511.

Cunningham,* doctor of phisicke, for his so many learned lectures which be red in our halle." Doctor Recorde had, it appears, dedicated his "Urinale of Phisicke" to the same body; and Doctor Turner† had "compyled his englyshe herbale for their sakes."

The maister Cunningham alluded to, is the author of a letter which succeeds the dedicatory epistle, commending highly "unto the professors of Chirurgerie in London, the labours of John Halle, one of theyr fellowshippe," and in which he expresses a doubt "whether Lanfranke oweth more to him [Hall] for the restoring of his decayed worke, or he to Lanfranke for the immortall fame hereby obteined." This is followed by a letter from Thomas Gale,‡ "maister in Chirurgerie, to his well beloved friende Halle," written evidently with a view to further the adventurous scheme of publication. Its encomium upon the art of surgery is forcibly expressed: "for, without it, pleasures were but painful, riches unprofitable, company annoyance, strengthe febelnes, bewtie lothsumnes, senses dispersed, and finally all things in the worlde unpleasant."

We have, then, internal evidence of the fact that Hall was not only highly esteemed by eminent contemporary authors, who were his friends, but was himself also a surgeon of repute. He was born in 1529, and, at the age of thirty-five years, was engaged in the practice of his profession in Maidstone, Kent. Bishop Tanner states that he wrote and translated several other surgical treatises. We learn also, from the same source, that he subsequently composed a volume of hymns. Cunningham tells us that "he hath also framed an other worke, inveying against vice, and therefore named the *Court of Vertue*, being now in the printer's handes."

* Cunningham (or Cunyngham) was, at the age of twenty-eight years, a physician of Norwich; and there is an extant engraving, representing him with Dioscorides' book of plants in his hand. He was the author of several works. One is entitled the "Cosmographical Glasse, conteyning the pleasant principles of Cosmographie, Geographie and Hydrographie or Navigation." Another treatise has for its subject the French Disease, or Syphilis of our nomenclature. Still another is a commentary on the works of Hippocrates.

† Dr. Turner's Herbal, here noticed, was published in 1551, as a Black-Letter folio, and is the oldest Herbal in the English language.

‡ Thomas Gale, or, as he sometimes wrote his name, Galus, was one of the surgeons of Queen Elizabeth. One of his works is dated in the year 1563.

His efforts in verse, which are scattered along these pages, though exceedingly puerile when criticized in the purview of modern poetry, yet compare favorably with the stanzas of the Battle of Chevy Chase, which was the popular ballad of his time. His medical library could hardly have contained many volumes beside the published productions of his friends, already enumerated, with perhaps "Bulleyn's Bulwarke of Defence against all sicknes, sorenes and woundes that doe daily assault mankinde," published in 1562; and possibly also a few Latin and Greek commentaries on the medical teachings of the classic and Arabian schools.

In the introduction to the treatise of Lanfranc, he states that the whole art of medicine is contained in three principal parts: Physiology, (which is made to include Anatomy), Pathology, and Therapeutics. The latter, or curative, part is described as having three instruments: Dietetics, Pharmacy, and Surgery. After remonstrating against the tendency, then prevailing, to a complete separation of these branches of medicine, he concludes by detailing the reasons which led him to reproduce in English the work of the Italian master.

Lanfranc was born in Milan, but was compelled to leave his native city in consequence of some political difficulties. He went to Paris in the year 1295, where he was known as a "medecin chirurgique"—a term then applied to doctors in medicine who practiced surgery.* He soon became the first of a long line of brilliant surgeons who have illustrated the genius and skill of the French in scientific pursuits. Pupil of Guillaume de Salicet of Placentia, he had readily surpassed his preceptor in the boldness and success of his undertakings. His work entitled Grande Chirurgerie, was the most authorative compilation of surgical science up to the conclusion of the 14th century, and we are not surprised to learn that the English surgeons of the 16th century studied and translated his writings with the reverence of scholars for the treasures of antiquity. With them, antiquity was equivalent to authority.

The treatise selected for publication by Hall, is the "Chirurgia Parva," or minor work. We are informed that it was originally composed in the form of a letter to a friend, as a prelude to a greater work subsequently published in 1296. This greater work is, without doubt, the "Grande Chirurgerie." The letter,

* Dunglison's Hist. of Med. Phil., '72.

or brief, is addressed by Lanfranc to his "faithfull frende and disciple Bernard," and was probably written, as the Italian and French titles seem to indicate, before his resort to Paris.

The limits of an article in the JOURNAL, preclude the possibility of making extended extracts from these quaint dissertations. Forty-eight pages only are allotted to the text proper, and twenty-four to the annexed "Antidotarie." The subject of fractures is exhausted in twenty-seven lines; that of dislocations occupies merely one page and a half. A portion of the seventh chapter, entitled, "Of the Wounde of the Heade with breakinge of Cranion," is interesting as an indirect confirmation of the idea that there is nothing new under the sun, and that the practice of auscultation and percussion was recommended five hundred years before the birth of Laennec:

"When the wounde is made in the heade with breakinge of the sculle, consider whether it be broken unto the inwarde partes or no, that is to saye, to *duram matrem*, whiche thou maiste knowe by divers meanes and waies, partelye by perseverance and partelye by infallible experimentes.* The signes be these: the feelinge of greate paine, vomiting, teares of the eies, crokednesse of the syghte, inflammation or rowlinge of the eies. And the experimentes are these: take a stronge threde, double twisted and wexe it, and let the patiente holde it stronglye in his tethe, and begin thou at the mouthe of him, and with thy nailes stretche and streigne oute the threde, til thou come at the other ende of the same, holding it streight a cubite lengthe from the tethe, and make a sounde upon the threde with thy nayle, and doe so often times. If the patiente may susteine the sounde without feelynge of peine, then is not the sculle broken to the *dura mater*, for, if it be broken, he maye in no wise susteine nor suffer the harping of the nayles upon the threde. Or else thou mayst also take and smyte his head with a smalle dry wand of wylowe, or of y^e^ pine tre, and *holde thine eare* to hys head. And if the sculle be whole, it wyle make an hole sound: but if it be cutte or broken, it will make a dumme noyse, after the comparison of a broken bell and a whole."

* These pages supply abundant evidence of the fact that the English language was at this time in its formative stage. The old black letters, or Gothic type, were originally *fac similes* of the characters found in manuscript. The various spelling of the same words in one paragraph, probably occurred in, and was copied from, Hall's chirography.

The treatment advised is, the enlargement of the wound, if the fractured surface be more extensive than the external lesion, and the removal of any loose pieces of bone, which may be encountered. If depression of the bone has occurred, the measures to be pursued are by no means heroic. Warm oil of roses—an application to wounds evidently much esteemed by the author—is to be infused, and small pledgets of tow or lint superimposed, soaked in the same preparation with the yolk of an egg added, hot. On the second or third day thereafter, an effort is to be made "by most tender and delycate workinge wyth convenient instrumentes," [not otherwise described],* to remove, not elevate, the depressed portion. The membranes were to be carefully avoided, and the operator is to have in mind "the lytell shiver that greueth the *dura mater*."

The external wound was to be kept open till the fracture was healed, by the aid of lint or tow, saturated with the lotion described, and over the whole were to be "bounde greate boulsters or pressures of towe, wete in the somer time in colde water, and in the winter in whotte water."

The second part of the work treats of "Apostemes." Hall declares that "this word signifyeth the same whyche the Latines caule *abscessum*." There are chapters on watery apostems, and windy apostems, apostems of natural and unnatural humors, hot, cold and compound apostems. It is a convenient word. Under it are discussed disorders of the most diverse etiology, including icterus, cutaneous diseases, carbuncles, and quotidian fevers. In the appended "Antidotarie" we find many familiar names of medicaments, interspersed with others that are strange and disgusting. Of the former class are, manna, scammony, aloes, lactucarium, opium, hyosciamus, cardamom seeds, cubebs, anise, chamomile, yeast, flaxseed, and the axangia porci.

It must be confessed that the anatomical compend by Hall, which succeeds the translated portion of his work, scarcely betrays the shadow on the dial plate of the three hundred years that divide them. It furnishes abundant proof that dissections of the human body were as yet neither permitted nor practiced in England. Mondini de Luzzi, in the year 1315,† dissected the human

* The trephine was first employed by Fabricius ab Acqua pendente at the close of the 16th century.

† Renouard, Hist. of Med.

cadaver in Bologna for the first time for seventeen centuries, and the acquisitions obtained through his anatomical studies, sufficed the world for nearly two centuries longer. It is exceedingly doubtful whether Hall and his associates, who quote for their authorities Galen and Hippocrates, were informed regarding Mondini's investigations. The international communication of their period, was had in the interest of sovereigns and their servants, rather than of savants. From his silence on that subject, we may, for example, conclude that Hall knew nothing of the labors of Ambrose Pare in Paris, who yet at this very time, published an account of the pathology and treatment of gunshot wounds produced by arquebuses—a species of injury then novel to the surgeon and the soldier.

Four anatomical plates only are appended, and these represent exclusively the external surfaces of the body. The explanations of the cuts are connected by lines with the parts named, but nowhere is the site of viscera or muscles indicated. There is one feeble attempt to outline the bones. The student is referred merely to the nares, the venter, the genæ, the pectus, etc. The plates themselves are so rude that they bear a curiously suggestive resemblance to those which illustrate a Chinese medical work in the library of the writer of these pages. For comparative excellence the palm should certainly be awarded to the edition of the Celestials.*

It must not be forgotten that the circulation of the blood was not discovered by Harvey till fifty-seven years after the date of Hall's publication; and that the latter still believed in the existence of the four animal humors: blood, phlegm, choler, and melancholy. His practice was based chiefly upon the four temperaments which were considered to result from these humors, viz.: the sanguine, the phlegmatic, the choleric, and the melancholic.

The chapter, "Of the hearte," is subjoined in full, as a sample of his other anatomical descriptions:

"And wythin those bones, that is to saye, the bones of the brest, the rybbes and the spondilles of the same, wythin the holownesse that is made of them, I saye, is the Hearte, named in Greeke,

* This volume was procured in Shanghae, by Dr. C. D. Maxwell, U. S. N. The plates are probably reproduced from some old compend of medicine in the Portuguese language.

cardia, and in Latyne, *cor*, confyrmed and sette. Whyche, because he is the principall member of all other members, and the beginning of life, is thus sette in the myddest of the breaste, as lorde and Kinge to all the rest: of whome he is obeyed and served, as a prince of hys subjectes. And the hearte hath bloude in hys owne substance, wheras all other members have it but in arteries and veines: and in the hearte is the nutrityve bloude made livelye spirite, and carried forth in the arteries, whiche in the hearte have theyr beginnynge. And the hearte is covered with a strong pannicle, called of the Latines, *capsula cordis*, and of the Grecians, *pericardion*. And from the hearte procedeth the greate arterie, whiche is called in Latine, *arteria magna*, from whom brauncheth and procedeth all the other arteries y^{t} are in anye member of the bodye, by which meanes the spirite of life is caried to all the members of the same. And the hearte is an offyciall member, spermatike, and of a lacertous substance. The greate ende wherof in his being leaneth and inclineth moste unto the ryghte side, and the small ende leaneth moste unto the lefte side. And in the hearte have the venall arterye and the arteriall veine theyre begynninges, of whose processes and offices I speake immediatlye hereafter in the lunges. Here also mighte be to greate purpose declared the greate secretes of these firste movinges whiche are in the hearte, called in greke, *systole* and *diastole*, in latine, *contractio* and *dilatatio*, which are compared in this orbicle (of divers learned men) to the *primum mobile*, or firste mover in the greate orbe. For these movinges are the first cause of all other movinges, as of pulses in the arteries and so of all the rest. But because these secretes passe the capacitye of the comon sorte, and also that I shoulde breake my purpose of briefnes, I omit them."

[O maister Halle, moste admirable is thy ingenuitye!]

It is clear that the county seat of Kent, where Hall was engaged in practice, was as much the resort of empirics as the larger cities of our own country. The indignation and disgust of our author at the practices of these folk, is meted out on almost every page of his book, in no stinted measure. He evidently could not tolerate an intrusion upon the fair domain of his art, by the "beastlie abusers both of phisicke and chirurgerie." His "historiall expostulation" is an honest and manly protest against the

laxity of the laws which permitted the impositions of men and even women, who enticed and deluded the common people with astrology, divination and magical remedies.

It is a curious fact that both he and Lanfranc hesitated to publish their works because they were fearful lest the ignorant should, by ever so little understanding of the contents, prostitute the results of their labor to unworthy ends. The Italian charges his friend Bernard to deliver his letter to "no rusticall Fooles or Idiotes, leaste by the ignorance of such, and by theyr rude and uncunninge ministration, this my worke (made for thy love to a common utilitye) myghte redounde to some personnes hurte or annoyaunce." And the Englishman is "not ignorant that some will thynke that this booke (beyng published) wyll be an occasion for suche men to be the bolder to abuse the same science. But I knowe and am sure that they shall not learne in this booke any thinge wherwith to hurte. Neither have I published the same for them. And further, if any abuser of Chirurgery reade this boke, he shall, I trust, so finde hymselfe rubbed on the galle, that he shall be moved (if he have any shame) to leave his vice rather than more to use it."

Unfortunately, such men have now no more shame, than when these words were first penned for their edification. The details furnished of their performances in Maidstone, sound strangely like those which at intervals find their way into our public journals. There was, for example—

". . . One Robert Nicols, a false deceiver and moste ignorante beaste and of the profession of vagaboundes. Who boasted him selfe to have been the servaunte of the late Sergeant Chirurgien to the Quene's highnes. But now the matter being put in triall, he sayeth he was apprentice with a priest. Among whose wicked and prodigious doynges (which are infinite) one very notable chaunced in the yere of our lorde, 1564, the 26 of September. He poured in a purgation to an honest woman of good fame, one Riches, wydowe of Linton, a parysh three myles distant from Maydestone, whiche within three or foure houres at the moste, purged the lyfe out of hyr body, so violente was this mortal potion. The woman being before in perfecte health to all men's judgementes: being onely of simplicitie persuaded to take the same, by the deceivable perswasions of this Nicols. Who made fayre wether of all thynges, and hir to believe that he would deliver her of such

diseases as indeede she had not." We are not surprised to learn that the unfortunate woman had been told by the imposter, that "hyr lunges were rotten."

The volume concludes with a species of Code of Ethics in metre,* that is fully as admirable as that adopted by our own National Association, since it is based upon the only golden rule of professional conduct. There are fifty-four verses in all. I select two as examples of the rest:

> "See that thou laye disdeyne aside,
> And pride of thyne own skyll:
> And think no shame counsell to take
> But rather with good wyll."

> "Sithe Bernarde knewe not all hym selfe
> Thinke never in thy minde,
> But that at laste, by painfull proofe
> Thou shalte all erroures fynde."

The study of the medical lore of past centuries is calculated to inspire a feeling of contempt or admiration, according to the spirit in which it is conducted.

Some, for example, can thereby merely accumulate proofs of the immense superiority of modern researches. The Cilician tent-maker wrote from Ephesus to Corinth, in A. D. 57,† that there was "one kind of flesh of men, another flesh of beasts, another of fishes, and another of birds." In 1868, a member of the Royal College of Surgeons of London,‡ found a "community of protoplasm in the finner whale, disporting his eighty or ninety feet of blubber with an easy roll amid waves in which the stoutest ship would founder, and the microscopic fungus, finding space enough to multiply into countless millions in the body of a living fly." Between these two men there is, for some, a deep which they cannot fathom.

* If this production appear ridiculous in the eyes of any reader, let him consult the chess-problems, theatrical criticisms and society gossip, to be found in Vol. I of the *London Lancet*, published in 1824.

† I Cor. 15 : 39.

‡ "On the Physical Basis of Life." T. H. Huxley, LL.D., F.R.S. *Fortnightly Review*, 1869.

Another,* who justly deserves to be named the Chrysostom of medical authors, speaks in this wise: "Our ancestors, less rich than we in the knowledge which it is our privilege to utilize, devoted themselves incessantly to the labor of production. Though poor in facts, they put to the proof every fragment which chance or experience brought within their reach, as the athletes who exercise their muscles, and there resulted a force, which, though it may have occasionally betrayed itself by remarkable perversion, was yet gifted with an insight full of grandeur and prolific in value. Their efforts multiplied in proportion to the poverty of their resources, and their success was astonishing. While we, whose opportunities are unbounded, are enervated, relaxed, spoiled by the very abundance which is offered to us. We are capable only of receiving and becoming engorged. Our intelligence is oppressed with satiety, and perishes unproductive."

Is there no nobler lesson to be read in the palimpsests of medicine? The Rig-Veda indicates that the language spoken before the birth of the Aryan and Sanscrit, recognized the relations of husband and wife, brother and sister, that subsist in the English homes of the present.† Viewed from that eminence which all science, by virtue of its immortality, aspires to reach, there is a wonderful kinship between Buddha, renouncing his palace and his princedom "in order to make captive old age, disease and death," and the observer, who in 1873, describes the cryptogamic spores that yield a harvest of malaria.‡

The aims, disappointments, labors and triumphs of John Hall, and his fellow-chirurgiens, are ours to-day. And who can read the apostrophe that closes his little volume without a conviction that he knew of the phases and problems of human life, which are the same in succeeding ages of the world:

"The bodye of man is called in Greeke, *microcosmos*, that is to saye, a lyttle world.§ For it is a lyttle world in deede, to be con-

* Trousseau. Introd. Clin. Med. de L'Hot. Dieu de Paris, 1865.

† Comparative Mythology. Muller, 1856.

‡ Dr. John Bartlett, of this city, now convalescent after an attack of remittent fever, has discovered in his blood and saliva the sporules of the palmellæ, planted purposely in his sleeping apartment.

§ Mayhap Sir Thomas Browne, Kt. M.D., had read this page when he wrote "I take my circle to be above three hundred and sixty: though the

sidered in order of Anatomye, yea, a wonderfull worlde, such a worlde in dede as the greate worlde was made for the onlye sake of it. And as some have named it a lyttle worlde, so have other some called it a common weale, a royall kingdome. For in this common weale was never found rebellion, but every subjecte servisable to his governor, and every superior tendering the wealth of his inferyors. Oh worthy common weale, by whom all common weales may take sufficient example and vewe, howe to governe or to be governed! Oh wilfull and negligent man y^{t} runnest a stray as one not knowinge the rule of right! What nedest thou a preacher in such a case, where thou art sufficientlye taught, if thou wilte learne in thyne owne creation! Oh whye shoulde that creature be brute, or insypient, or as a salvage beast, whiche for his wonderfull giftes, geven him of God in hys creation, is called a lyttle worlde or a common weale! What a strange thinge were it that he whyche is a common weale in hym selfe, and carieth continually wythin hym selfe the perfect image of a common weale, shoulde, in a common weale, bee a cause of a common destruction."

ARTICLE II.— *The Premonitory Symptoms of Insanity.* By HORATIO R. BIGELOW, Boston, Mass.

In his Croonian lectures before the Royal College of Physicians, London,* Dr. Radcliffe alluded to certain conditions of mental habit, which might be considered as precursory of mental alienation. His intelligent observations have been so thoroughly corroborated in certain cases that have fallen under my notice, that I propose to go over this field somewhat more in detail, and to add to it other facts which are worthy of further investigation— especially those relating to the early ophthalmoscopic appearances. The first appreciable symptoms of mental derangement

number of the arc do measure my body, it comprehendeth not my mind: whilst I study to find out how I am a microcosm, or little world, I find myself something more than the great. There is surely a piece of divinity in us, something that was before the elements and owes no homage unto the sun." (Religio Medici.)

* Lancet, June and July, 1873.

are invariably announced by one or more of the following conditions:

1. Self-conceit.
2. Misanthropy.
3. Distrust.
4. Impulsiveness.
5. Melancholy.
6. A disordered fancy.
7. Delirious excitement.
8. Disturbances of the senses.
9. Untruthfulness.
10. Moral cowardice.
11. Instability of purpose.

The ocular appearances which I have found co-existing with one or more of the preceding, and which have been followed in due course of time by the actual outbreak of the disease, have been:

1st. Slight anæmia.

2nd. Slight hyperæmia.

3rd. Instability of eye movement, with increased tension (intra-ocular.)

4th. Intermittent irregularity in the supply and distribution of the retinal vessels.

Fresh interest is added to the consideration of these points, from the fact that the nature of the delusion may be generally predicated upon the character of the incipient symptoms, and that the force of the disease may be turned aside, entirely or in part, by a proper attention to the necessities of the case. The symptoms may occur separately, or two or three of the groups may come into conjunction—rarely, if ever, do we find a case in which they are all combined.

It is generally maintained that the ophthalmoscope reveals nothing abnormal in the intra-ocular structures, in the earliest stages of insanity—nothing which may not be a normal variation of the healthy fundus, or a constant symptom of numerous other brain lesions. This, in so far as it relates to anything absolutely pathognomonic, is, in the present infancy of our research, quite true; but I do unhesitatingly affirm, that there are certain conditions of the fundus oculi, which, in connection with the concurring

mental symptoms, would justify a diagnosis of approaching alienation. I have noted the one or the other of these conditions in so many cases, all developing into confirmed insanity, that I am persuaded of their very general presence.

As these appearances have not, to my knowledge, been particularly noticed, in this connection, I will take up their consideration at once, and then, should space permit, pass on to a brief review of the mental phenomena.

I. *Slight anæmia*, was observed in ten cases, with the following mental phenomena: in three patients there was misanthropy; in five, great dejection of spirits and melancholy; and in two, suspicions. The alienation generally assumed the form of acute melancholia. The arteries were diminished in size, and the normal proportion of bulk between them and the veins was destroyed; they did not exhibit the same amount of tortuousness as in the normal eye; the discal vessels were with difficulty made out. These symptoms became more prominent as the disease advanced.

II. *Slight hyperæmia.* This condition is characterized by an over supply to the intra-ocular vessels. Presenting this form were fifteen patients—six had delirious excitement; two, instability of purpose; three, melancholy; three, distrust; one, misanthropy. Developing: six, acute melancholia; four, acute mania; one, folie circulaire; four, mania with exaltation. The disc was of a more rosy hue than normal, its vessels slightly enlarged, and new ones, apparently, appearing; the vascular reticulum of the fundus covered a large extent, while the veins were swollen and tortuous. As the disease became established, the above became more and more marked, and finally resulted in an *intense congestion of disc and retina.*

III. *Instability of eye movement, with increased intra-ocular tension.* Three cases were recorded, all characterized by religious fervor, and developing into acute melancholia, which in one case was followed by an attack of maniacal delirium. There was rotary nystagmus in two cases, and horizontal in one. The oscillation was variable, being increased by any nervous shock, or by prolonged reading. There was slight increase of intra-ocular tension in both eyes; slight hyperæmia was visible in the fundus, but as one of the patients was menstruating at the time, it might have been due to that cause. In that case, characterized by horizontal nystagmus, it

is supposed that the lesion was due to a commencing cerebro-spinal sclerosis, as some of the other symptoms seem to point to that disease.

IV. *Intermittent irregularity in the supply and distribution of the retinal vessels.* Two cases came within my notice, one with great self-conceit, resulting in melancholia and masturbation, the other in the status epilepticus. The intra-ocular appearances were exceedingly peculiar. At one time the fundus would be quite normal, while its entire character would become changed during the same examination. The retinal vessels, running at first in a natural direction and of a healthy size, would suddenly fade away, to reappear, distended and tortuous; the least excitement was sufficient to induce the change. In neither of the cases could I discover any indications of abnormality in the heart's action, save the usual feebleness of general anæmia.

That some intra-ocular change, more or less evident, must precede every attack of insanity, announcing itself as the first appreciable symptom, seems to me probable. Every lesion of the brain, however obscure in its pathology, must appeal to a disturbed vascular supply for its solution, and the first notice of this change will be given us by the ophthalmoscope. What the chemico-physiological change may be, by which the different forms of insanity are superinduced, is a question as yet beyond our ken, and hence we can apportion to no form an exclusive and particular set of intra-ocular appearances, but from extended observations we can generalize those conditions which are present in certain states of alienation, and by combining these with the mental phenomena, we can predict the result.

It is my belief, that many appearances have been reckoned among the variations of a normal fundus, which are properly the forerunners of commencing disease, and that owing to this latitude of description, many have fallen into the grave error of ignoring slight abnormalities of vision.

The mental phenomena anteceding the disease, will find ample corroboration in the experience of those who have made the study of insanity a specialty. The exaggeration of a vice, or a natural bent of mind, the development of a taste heretofore unrecognized, or the complete change of a virtuous, honest life, into unreliable, unwholesome channels, are indicative of great cerebral disturbance,

and demand the closest watching, with the most circumspect treatment. That some of these changes, oftentimes of the slightest appreciable nature, *do* precede every case of alienation, I have no reason to doubt; and looking at mind as the outcome of cerebral action, rather than as a manifestation of an unknown entity—neither matter nor spirit, but possessing somewhat akin to both—this precedence of the disease by the heralds of disturbed function would appear to be eminently probable.

From being an affectionate person, kindly disposed to all, the patient may, at first, manifest notable irritability of temper when reproved, or counseled by parental authority; this gradually grows into dislike of restraint, of association and connection; then, becoming pure misanthropy, it includes the whole family circle: it ignores the closest ties, and even may extend to the human race in general. Combined with this, there is often evinced a suspicious and distrustful disposition, as if they of the household were plotting against the patient's happiness, thus building up a delusion which inevitably results—a delusion or fear of being killed or poisoned.

Not until this evidence has assumed potential form, is the physician consulted, and then the disease must be left to run its course; whereas, the condition of cerebral erythism, which was the essence of the subsequent illusion, might have been dissipated.

In other cases, the person is conscious of a manifest want of *self-control*, of *voluntary power*—he cannot *will* to do that which he desires, and must be *led* like a child to its accomplishment. This want of control, carried to its greatest extent, constitutes *moral insanity*. A singular manifestation of this weakness was once noticed by me, in a patient exhausted by hysteria, and in whom, subsequently, acute mania obtained; a fly alighted on his forehead, when the right arm was raised, almost unconsciously, to drive it away, but ere it was half-way to its journey's end, the question arose in the mind of the patient, whether the left arm would not answer as well—the right arm dropped, and both arms remained passively at the side, while the fly remained undisturbed; the patient, unable to solve that stupendous question of *free will*, could not exert his brain power sufficiently to give the necessary stimulus to either arm.

I have seen patients whose lives had been characterized by stern integrity, unimpeachable honor, and great moral fortitude, suddenly become less watchful in their statements, less circumspect in action, less a "hero in the strife." Little by little, as the cerebral changes received no check, the old self seemed to fade away, and a new creature—unreliable, untruthful, and full of moral cowardice—to obtain sovereignty. Others will assume the most inconsistent and immoral views of the great social laws, sustaining themselves by close logic, and classic reasoning; while others will assume as a reality that which is but the fictitious image of their own imagination. And so on through the series, we meet with cases of confirmed insanity, in all which we may trace the prodromata to some of these changes —often overlooked, so stealthily do they creep on.

In the offspring of neurotic families, and in those where a powerful *neuriasis* is ever calling out strange fancies, or unusual modes of thought, we should especially be on the watch for the least indication—that by healthy association and intelligently directed treatment we may abort the disease.

With Dr. Radcliffe's recently propounded views of mind, I cannot sympathize. Do what I will, I cannot logically enter into that subjective introspection which hypothecates a spiritual entity as presiding over all forms of cerebral action—which from a super-exalted standpoint seeks for a First Cause in the wondrous inter-relationship of a scientifically ordered, intelligible existence—*matter*, with an unknown, unfathomable, suppository ideal—*spirit*. To me the wondrously endowed, chemically organized brain matter, susceptible of infinite variety and change, is a more scientific explanation of mind, the result of these delicate physiological actions, and just as beautiful, as the more vague and intangible, spiritualistic view. Neither in memory, can I recognize anything to controvert this opinion. That a measure of memory exists in the thing remembered, is to me most improbable, as daily evidences occur wherein lapse of time is sufficient to efface entirely, or in part, the integrity of this faculty, by creating great external changes.

ARTICLE III. — *Abstract of the Discussion in The Pathological Society, London, June and July, 1873, on the Anatomical Relations of Pulmonary Phthisis to Tubercle, with Remarks.* Reported to the Zanesville Academy of Medicine, Zanesville, O., Oct. 21st, 1873, by Z. COLLINS MCELROY, M.D., of Zanesville, Ohio.

During the months of June and July, present year, 1873, a discussion took place in "The Pathological Society" of London, "On the Anatomical Relations of Pulmonary Phthisis to Tubercle," which was, in many respects, one of the most remarkable ever had in a medical body, for the acknowledged giants of the profession of that city were the contestants.

The debate was characterized by the almost extreme courtesy of the speakers to each other; entertaining, as they did, very diverse opinions on many points, which none seemed afraid to bring forward. Then, again, there was an equally remarkable agreement as to the more obvious, as well as minute and technical points of pathological histology, after death from so-called phthisis. These were illustrated by microscopical preparations, and drawings, enlarged images of which were shown on screens. On these there was a substantial agreement, but there it ended, for the interpretations, lessons, inferences, or deductions, drawn from these changed conditions of structure, varied very widely. And the general results of the discussion were both positive and negative, the latter preponderating.

Perhaps one of the most noticeable positive results was the clean sweep made of current pathological notions, opinions, or speculative beliefs, of the intimate relationship between tubercle and phthisis, as cause and effect. So far from this being the case, it was made evident during the discussion, that the very reverse is probably correct, viz., that tubercle, so called, was a result, or at least only a concomitant, not alone of the condition called phthisis, but of pneumonia, scrofula, and divers other conditions.

Gentlemen in the profession who have posted up in their minds as a finality, that phthisis, so called—consumption, popularly—depends on tubercles in the lungs, are in a Rip Van Winkle sleep, and if they ever wake up, will find their pathology out of fashion entirely.

Dr. Wilson Fox, who opened the debate, made a statement of the anatomical condition of the lungs of children dying from typically acute phthisis; and describes them as follows:

"Semi-transparent granulations; white granulations, neither absolutely opaque, nor absolutely semi-transparent, with a certain degree of firmness. Granulations like the semi-transparent, firm, and more or less caseous in their center. Yellow, soft granulations, somewhat prominent, easily crushed, but not easily removed from lung tissue, varying in size from a poppy to a mustard seed, and more rarely a split pea. Then, distinct caseous granulations, sometimes with, and sometimes without, a semi-transparent zone surrounding them. Groups semi-transparent, or opaque granulations, one, two, three, or more in number, reaching the size of the split pea, or bean. Indurated granulations surrounded by a zone of pigment. Tracts of indefinite extent, one, two or more inches in diameter; irregular in outline, granular on section, which sometimes pass insensibly into so-called gray infiltration. Cavities, from an infinitesimal speck to that of hazel nuts, or larger. Sometimes granulations softening into cavities, either the softer, white, or yellow. The semi-transparent granulations, *per se*, as far as I have seen them, are not found softening into a cavity, without some intermediate change. Tracts of gray, semi-transparent, gelatinous in appearance, what we know as either gray pneumonia, or gelatinous pneumonia, or gelatinous gray infiltration; and red pneumonia, bronchitis injection, or punctiform extravasation; and dilatation of bronchi, and some other appearances, having little to do with the subject under consideration.

"The point I wish to insist on is, that the gray granulation—typical tubercle of Virchow—does not exist alone in the majority of cases of acute tuberculosis of the lungs of children, but is almost always found with other forms of change, which, in a large majority of cases, so predominate that the gray granulation is the rarer appearance, and is even difficult to find.

"By gray granulation I allude to a body composed of minute cells about the size of a white blood corpuscle, or smaller in older forms, separated by a delicate net work, and may be taken as the typical structure of tuberculosis. There are often much larger cells, sometimes the $\frac{1}{500}$ or $\frac{1}{300}$ of an inch in diameter, with many nuclei. I have never been able to isolate them. Those charac-

teristics of tubercle in the lung are these small cells, with a nucleus, often nearly filling the cell wall.

"The point I wish to lay before the society is, that all these changes—caseous infiltration, large pneumonic product; mingling of pneumatic products with reticular growth; induration of reticular growth; infiltration of that reticular growth throughout large parts of the lung, which then acquire a more or less caseous appearance—all concur in the most typical forms of acute tuberculosis.

"I venture to lay down these propositions as corollaries to these points:

"1st. Speaking in the abstract, tubercle may occur without inflammation in the elements of the tissue in which it is developed.

"2nd. That tubercle is found in addition to inflammation of the tissue in which it occurs.

"3rd. That in the liver and kidney in certain blood states, you may have tubercular growth, as part of the signs of the acute disease, or constitutional affection, in which no inflammation of the part in which it occurs can be detected.

"4th. That in mucous and serous membranes, or tissues, the mixture of inflammation and tubercle is constant.

"5th. That in the lung the implication of the cell wall (air cell) is the most constant and typical lesion of phthisis. Excluding ulcerative bronchitis, ulceration after pneumonia, indurated pneumonia, lesions from dust, cancer, and syphilis, I have, during my life, only found three cases of phthisis which did not present the gray granulation, or soft granulation, or such caseous change, or infiltration such as I have described.

"Chronic phthisis is distinguished from acute by the slowness of induration in these growths, and not by their quick or acute destruction.

"I have given no definition of tubercle, and am not going to do so; but so far as we know at present of tubercle, it is a lymphatic overgrowth produced by irritation. Lymphatics have been traced in sufficient numbers in the cell wall (air cell) to allow us to believe that lymphatic tissue must play an important part in the changes of lung tissue."

Dr. Moxon approved of the statements of Dr. Fox, and summarized them as follows:

1st. That miliary tuberculosis of the lungs has neither the anatomical nor histological constancy, or peculiarity, commonly ascribed to it.

2nd. That miliary tuberculosis, in short, exhibits all the products found in active chronic phthisis.

3rd. That all the other products, constituting caseous pneumonia under various forms, are essentially of the same histological structure, which Dr. Fox thinks is characteristic.

4th. That the other characters of chronic phthisis are fairly traceable to time.

5th. That he, Dr. Fox, asserts the identity of all phthisis, based on this peculiar microscopic matter.

Dr. Moxon did not think that the basis of a definition of phthisis should rest on purely histological grounds. There was nothing specific about it. If inflammation was set up in a person, he might be said to be on the high road to tubercle. Did not think due attention had been given to the developmental changes in tubercle. Thus, the life of a tubercle was inside of three months, so that in five or six years — the time allotted to so-called fibroid phthisis — many generations of tubercle must have come and gone, doing their natural work in destroying, first, their matrix, and then themselves, leaving behind them the scar of fibre in which the nature of our bodies always enshrouded the traces of such mischief.

Of tubercle, since we can define its cause, it is not specific. Neimeyer's view, that tubercle is a development of inflammation, is essentially weak — not sustained by facts.

Dr. Cayley thought that if tubercle was to be regarded as a lymphatic overgrowth caused by irritation, then tubercle cannot be distinguished, since the so-called adenoid tissue, to which the term lymphatic overgrowth by irritation was applied, occurs in parts of the body free from any kind of irritation. It is found in the margin of hard chancre, in a soft node, in early stages of cirrhosis of the liver, and can be produced in lung tissue by a great variety of causes, as grindey dust, chronic pneumonia, pleurisy, etc. Thought the term tubercle should be restricted to the gray granulations.

Dr. Beale agreed as to the descriptions of Dr. Fox, but differed in several important points of interpretation. Did not think the tubercle corpuscle had anything to do with lymph corpuscle, or

adenoid tissue. Thinks that "irritation" is too loose a term. Virchow's doctrine of irritation would not stand scrutiny, for it leads to the ridiculous conclusion that minute particles of protoplasm, bioplasm, or whatever else they may be called, have the power of sympathizing with other particles. The term irritation must be looked upon as the Abracadabra of pathology.

"It seems to me that though it may be impossible for any one to say that this or that is a tubercle corpuscle, we must assent to the doctrine that it is a special thing. It would be as impossible to distinguish any one of these compound masses of different forms of living matter, as to distinguish the corpuscles of the embryo of one animal from the other, if they were mixed together. Under different circumstances, no doubt, the tubercle corpuscle will give rise to a differently formed material, fibrous, soft, glistening, or a matter which at last may degenerate into that which we know as caseous substance."

Dr. Bastian said the notion that cheesy degeneration, or caseation, constituted the essence of tubercle, must be thrown aside, as one which a larger experience could in no way sanction. The characteristics relied upon by Laennec, and others, had been shown to be almost wholly valueless as characteristics of any special and peculiar something, which it had become the fashion to call tubercle. Inasmuch as such products, both in their incipient and advanced stages, were specially abundant in the lungs of persons dying from phthisis, this affection became one of which tubercle could no longer be considered the pathological essence. It was now known that epithelial impactions, and overgrowths in the bronchial tubes, and fibroid infiltrations of a chronic inflammatory character or nature, were, in the main, the special tissue changes which subsequently gave rise to the various lesions of chronic phthisis.

Objects to conclusions founded on experiments on rodent animals in the artificial production of tubercle. Believes them to be so peculiar as to render any conclusions hastily formed from experiments on them, unsafe to apply to human pathology altogether. And is impressed with the altogether gratuitous and unnecessary difficulty besetting the paths of teachers who endeavor to explain to students what is and what is not tubercle. To this conclusion he has come slowly and deliberately, after years of experience as a teacher.

Dr. C. I. B. Williams cannot but think that this debate on tubercle has been more about words than things. A great many things have been shown, and there is ample proof of much diligent labor and careful observation, more, apparently, with the object of finding out what these things shall be called, than to find out their real nature.

"The term growth, or growths, is applicable to tubercle only in the most limited sense. Except at their first inception they do not grow as other growths and tumors do. They harden by the increasing number and consistence of their corpuscles. And this induration, by depriving them of pabulum from the blood, leads to their ulterior decay, either by caseation or dwindling. As growths they are insignificant and abortive, and their chief characteristic is early decay. This is the foundation of their consumptive character, tending to the destruction of the tissues, and waste of the body. That miliary tubercles are essentially modifications of lymphatic glandular tissue, is, I think, fairly proved by recent observations, confirming the opinions of Portal, Broussais, Abercromby, and others. The similarity in scrofulous disease in lymphatic glands, and tuberculous disease in the lungs, and their succession in the same individuals and families, have been generally accepted as strong evidence in favor of their identity; and rendered most probable the views of Portal and Broussais, founded on anatomical as well as clinical observations, that miliary tubercles have their seat in the lymphatic textures. Virchow's declaration that tubercle resembles lymphatic or adenoid tissue, together with recent microscopic observations, have produced a general concurrence of opinion as to their resemblance, if not identity. I do not concur in Dr. Fox's declaration, that tubercles are lymphatic overgrowths; nor do I believe the lymphatic system is at all necessary to the production of other tuberculous formations not granular. There is an intimate connection between the form of miliary tubercle and some elementary parts of lung structure.

"The corpuscles of miliary tubercle are lymphatic, developed by irritation in adenoid tissue; while the corpuscles of inflammatory irritation are the pale blood particles, migrating, and forming the corpuscular exudation matter of scrofulous and other low types of inflammation. And since lymph corpuscles are identical in all their characters with the colorless corpuscles of the blood, so we find

the same resemblance in appearance, and the same unity in nature, in the multiplied corpuscles of diseased lymph in miliary tubercle and those of inflammatory exudations in scrofulous subjects. In this there is my key to the two-fold seat and origin of tubercle, or rather of consumptive disease:

"1st. Lymphatic; miliary; infective; scattered.

"2nd. Inflammatory; diffused; local.

And thus we get explained the identity, and yet the difference, of all the chief elements of consumptive disease—granular and diffused—differing in form and seat, but alike in their corpuscular composition and proneness to decay.

"In ordinary nutrition, and even in hypertrophy, the growth of the tissues may be affected by the activity and proliferation of their proper cell germs, or bioplasm. But in inflammation, and similar states of vascular excitement, there is an overflow of plasma through the coats of the vessels, with nascent materials, ready to form without the aid of any cells or germinal matter from old tissue. The result is the coagulable lymph of Hunter; the fibrinous and croupous of Rokitansky; the fibrinous and corpuscular of Paget; the plastic and cacoplastic of my own; thus accounting for the relations of tubercle or phthisis to inflammation more satisfactorily than the maze of growths in which the northern Germans mystify the subject. The more fibrinous and less cacoplastic exudation becomes organized into a tough contracting tissue called fibroid, and other like chronic consolidations. The more corpuscular and aplastic degenerate into cheesy matter, to soften and decay. constituting yellow tubercle, and similar results of scrofulous pneumonia. And these phthinoplasms, as I call them, whether they wither and dwindle, like fibroid, or caseate and decay, as tubercles, and corpuscular indurations, represent different degrees of the same consuming disease, which brings the flesh-forming, and life-giving materials of our body to premature decay."

Dr. Green thought, on the whole, it were better to drop the term tubercle, since its retention tends to cause confusion among pathologists, from the utter impossibilty of saying that this is or is not tubercle.

Dr. Crisp thought that the study of such a question as the relations of tubercle to phthisis ought not to be confined to the

human body, but extend to the whole range of inferior animals, determining, by experiment, in what kind of organization each histological structure was first met with, and how it differed from that in man. In this ascending line of investigation the discrepancies and differences now existing might be satisfactorily explained and harmonized.

Dr. Pollock reviewed at length the history of tubercle, from Laennec down to the present time; and concluded, that while there was typical pathological unity in phthisis and tubercle, the disease called phthisis was the manifestation of various morbid agencies, lymphoid, inflammatory, and degenerative, which, in their various evolutions, constituted the several varieties of the clinical affection.

Dr. Wilson Fox closed the discussion very lengthily, going all over the ground again; endeavoring to answer objections, and reconcile facts and appearances, but admitted that the search for specific or definite pathology for a specific or definite disease, or diseases, had been a failure; and that the anatomical and pathological relations of tubercle to phthisis were still chaos. He wouldnot, however, in consequence, drop the term tubercle, nor for the present cast aside names for diseases in our literature. He had began the study of phthisis, impressed with the belief that there were a number of specifically different diseases grouped under the general name phthisis, but his investigations had long since convinced him to the contrary.

The foregoing abstract of the debate, or discussion, was taken from the printed reports as they appeared in the American reprint of *The Lancet*, for July and August, and are mostly in the very words of the several speakers, as published. Sentences were selected in which they seemed to approach definiteness in their statements. It has been made with care, and though more or less broken and detached—scrappy, as it were—and lacking the fullness of the thirty closely printed pages reported in *The Lancet*, yet, I think, fairly conveys the conclusions of the several speakers.

In commenting on the discussion, the first thing to be noticed as striking and peculiar, is, that a discussion on such a restricted topic as the anatomical relations of phthisis to tubercle, occupying so much of the time of men who probably have little to waste,

should have taken place at all. Nor need it be an occasion for surprise that no positive results were reached, since it must have been known to the speakers themselves, as well before as after the discussion, that there were none to be reached.

Several of the speakers apparently chafed under the restraints imposed on them by the nomenclature in use by the profession to designate appearances only, but not the facts behind them.

An effort to get the term tubercle dropped out of use was made, but it was unsuccessful. Another term in still more frequent use—irritation—was severely handled. But the weight of "authority" was against disturbing the technology now in use, and the matter was dropped. And yet that is the most urgent need of medicine now. Many of the terms used in medicine have descended to us from the remotest antiquity unchanged in significance. Their definitions cannot be changed, and the only alternative is an entirely new nomenclature, to correspond with the facts which underlie appearances. Entire changes in nomenclature have been made in other departments of knowledge, a notable example of which is seen in chemistry. What was ferri sulphus, when I was a student of chemistry, is now feric sulphide. We who now write for "bromide of potassa," or, in the language of the Pharmacopœia, "potassii bromidum," will find it "potassic bromide" in our new works on chemistry. Of course this change has not been made without opposition. But it is being gradually adopted, and at the end of another generation will probably be in universal use.

Now what has been done in chemistry, and is now doing in chemistry, can be done in medicine, though perhaps more slowly. But as *The Philadelphia Medical Times* puts it. "'Nestor' says, leave innovations alone, or you will lose your bread and butter." And so bread and butter may, for many generations, prevent the necessary modifications in medical nomenclature, to the end that it may take rank with other sciences in exactness.

There was not, in all probability, a solitary Fellow of the Pathological Society of London, at that time, who did not know that life—all life, animal and vegetable—on our earth, has but three fundamental factors, viz., materials, forms of structure, and motion in materials of structure; or, in other words, materials, force, and forms of organic structure; and that they had no power either to create, or annihilate, either materials or force; and,

except through natural channels, or modes, they could not create or make or combine materials into an organic form of structure, capable of performing a function. And that, as physicians, their sole power laid in a partial control of force, or motion in materials of structure. That to study, or discuss properly the anatomical relations of any given symptoms, or phenomena, before death, with the conditions, or states of structure, or materials of structure, after death, the whole of the conditions of life—evolution, growth, maturity, decline, and dissolution, or, in other words, histogenesis and histolysis of the tissues—must be brought under consideration. Yet, guided largely by nomenclature, they discussed a narrow, and, in fact, not a discussable question.

As pertinent to the question, and a necessary preliminary to its discussion, an approximate or definite settlement must be arrived at on the following points: What relation does the body of man bear to the materials and forces of nature about him? How do the materials he uses as food, the water he drinks, the atmosphere he inhales, combine to form living flesh, capable of performing a function, or functions, chief among which is repair from new material as momentarily wasted; and multiplication and perpetuation in gross of his body? Is it by the ordinary forces of nature, "stored up" in the food he eats, and made available in his body, by "modes" during its complex chemical changes there? Or, is it by some special force not manifested elsewhere in nature than in living bodies? Is it by chemical means, *i. e.*, by reaction between elementary atoms or molecules of matter; or by mechanical means, as in building houses, bridges, or ships? What are the means by which the structures are maintained? Is it by chance, or accident, or does it take place in obedience to law and order? Has what we call force anything to do with the metamorphosis of food into living flesh? Are the materials so varied in form and color found in the lungs after death from so-called phthisis, matter which has failed to reach natural structural condition? Or, is it matter on its downward career from its condition in natural living structure? What are their ultimate constituents, and in what respect do they differ from the food eaten during life? Are they from food at all? In what respect do they differ from the ordinary condition of similar elements elsewhere in nature? Are their existing conditions—chemical and physical appearances—due to a deficiency or

excess of force, or misdirected energy in either the ascending or descending scales of organization? Are they due to conditions or causes internal or external to the body? If so, what, and why? How much is certainly known, and how much extremely probable, in regard to it?

These, and many more like questions, must be answered and settled, or approximately settled, before any intelligent inquiry can be made into the relations—anatomical relations—of states of the living body, with post mortem appearances.

These questions are not asked because they are supposed to be posers, as difficult questions were called in my school-boy days; or because they cannot all be answered either certainly, or approximately, with almost certainty. For there was not one of the speakers in the debate in the Clinical Society who could not have done so then, and cannot do so now. The truth is, the question they discussed was not such an one as its learned fellows ought to have discussed, for the results obtained were not a compensation for the work performed. No such narrow topic can ever be discussed properly, because the factors to it are at best only hypothetical, or traditional, founded only on external appearances. We all talk, learned and unlettered, of sunrise and sunset, yet most of us know that the sun neither rises nor sets, as the words would imply, as ordinarily defined. Thus, the conditions of living bodies designated phthisis, are so called on hypothetical considerations only. The peculiar chemical state, and physical appearances of materials, found in the lungs, and elsewhere, after death, are called tubercle, on hypothetical grounds only; and conclusions or deductions drawn from such hypothetical premises could not and did not disclose any certainties, as this debate has so strikingly and clearly demonstrated.

Two years since, a large part of a populous city in the State of Illinois was laid waste by fire,—who does not remember the Chicago fire? Nothing of consequence was saved from the burnt district; all property, and some life, shared a common fate in the conflagration, so rapid were the chemical changes in the material there.

Now, Chicago before the fire, so called, was composed of organized and unorganized material, having forms of structure to

adapt it to the performance of the functions of the traffic and life concentrated there.

And Chicago before the fire, and a human body before death, differ not so much in material, or in forms of structure to perform special functions, as in this fact, that while both perform function at the expense of structural forms, Chicago, as a city, possessed no inherent capacity for repairing daily waste from new material, while living bodies have that inherent capacity, but not to an unlimited extent, else living bodies would be immortal. The conflagration in Chicago destroyed no material, it only changed its forms of structure, as an incident to the changes in the chemical condition of its material. And no force was lost or destroyed; but the force stored up in its materials was suddenly liberated, and found its correlation in mechanical motion in the surrounding atmosphere, and in the new chemical conditions of its material, which then presented other and widely different physical appearances.

Without repair of its structures year by year, as they were wasted in the performance of function, time would have completed the work of the destruction of Chicago as completely and effectually as the conflagration. But the *post ignum* appearances and condition of its matter would differ widely from their *post mortem* appearances after natural decay.

And so of living bodies — human bodies — their capacity for self-reproduction is limited in time. Little by little the forms of structure are lost, as the post mortem appearances of the octogenarian abundantly demonstrate. Time,* and wear and tear, complete their work here, just as it has done for cities as populous as Chicago was, in the past.

Life is terminated by various causes at all stages, suddenly, by missiles of war, accidents incident to civilization, so-called diseases, as from chemically complex matter introduced from without, capable of setting up higher rates of motion, and changing forms of

* We all speak of time as something absolute, or real. But this is only true in the same sense as we speak of the sun rising or setting. Time is the relative and ever changing relation of moving masses of matter to each other. There is no abstract time, *i. e.*, a something distinct from the relative position to each other of masses of matter, large or small. There are no two points on the earth's surface having the same apparent or real time, at any moment. The reality behind what is called time, is motion by matter.

structure, as the virus of serpents and insects; or the virus whose results are severally designated small pox, yellow fever, Asiatic cholera, etc. Here, post mortem appearances differ widely from those of the octogenarian, mainly wrought, as we say, by time, but, at all events, by causes operating slower than those giving rise to the states named.

Again, cities have been desolated by violence, other than fire, *i. e.*, mechanical motion in their material, as by explosions, incidents of war, earthquake, etc., more speedily even than was Chicago by chemical motion in its materials — fire, though the results are the same, viz, forms of structure, upon which their utility and value to human society depend, are broken up, and capacity for function lost. The physical appearances of their material would vary as the motion in it had been mechanical or chemical, and time occupied in effecting them; the force in both cases being the same, and differing only in mode and velocity.

Like many thousands of my fellow men, I have made a *post ignum* examination of the burnt district of Chicago. I found that all material capable of assuming gaseous or liquid conditions during the fire had disappeared; and in place of the *ante-ignum* Chicago, with its tide of life and traffic, there only remained the non-gaseous matter, forced into new and often curious combinations. The mass of iron in the Park — a memorial — weighing several tons, existed in some commercial establishment before the fire as kegs of nails.

My lesson from a *post ignum* examination of the burnt district of Chicago, was not to note and map the forms, appearances and colors its material presented. A new city had in part arisen, and was rising, from amongst the ruins or *debris* of the old, which had so suddenly passed away. The materials of the new city were partly old, and partly new, the new largely predominating. But it was still Chicago. Of this, more presently. A good many of the later years of my professional life have been devoted to the study of my own body, and naturally enough the question "how does the food I eat become part of my living flesh?" came up for solution. The hypothesis of a special vital force as the means, though accepted as solving the problem during so many centuries, was soon dropped out of consideration. Then I found it necessary, too, to similarly dispose of much of the physiology now

currently accepted on the subject, before any progress was made in obtaining a solution satisfactory to my own mind. Then, collecting the facts of experiment and observation obtained by others, and adding to them facts and observations, together with some experiments, of my own, I started out *de novo* to track food to living flesh. And I now entered on the investigation without any preconceived ideas on the subject, other than those from which I had endeavored to divest myself. In prosecuting my inquiries I soon found myself in possession of a considerable mass of facts, which did not fit well together. Men of science point out the uselessness of mere collections of facts, as well as the mistake of confining investigations concerning their relations to each other within too narrow limits. They have shown, also, the importance of comparing the ascertained facts of one subject, with the facts of other and apparently little related subjects. In this way much useful information, and many instructive analogies, are obtained. It is from facts viewed in relation to known conditions that we can alone hope for useful additions to our knowledge.

I was not long in discovering that my own body presented too many complexities to allow a solution to be reached from its study, and it became evident that I must get the key among simpler conditions of life.

In the vegetable world I found the means for reproduction, *i. e.*, the force, and part of the material, stored up in what is called a seed. That to grow, or perform its function, a seed must be surrounded by certain conditions, as new material, moisture, atmosphere, sunlight, and a certain range of heat, that is, motion of matter, and protection from enemies. That when the seed was ripe, that is, means perfected for reproducing, multiplying and perfecting its kind, in the case of annuals, the parent plant was dead, or died soon after; and with perennials, coincident with the fall of foliage. That there was individuality in the vegetable realm of nature, as the animated. That to preserve identity, grafts, and shoots, or cuttings from the parent plant, must be used in multiplying any special kind for desirable fruits, or flowers, as apples, pears, grapes, roses, etc. That the seed reproduced its kind, but not with perfect identity, for each new plant from a seed had its own individuality.

In this scrutiny of the vegetable world, it did not escape my

notice, as I have already stated, that the ripening of the seed — that is, storing up the force in the necessary material to form the structures of the new plant up to that point and time when it could appropriate new, and other material, not supplied, or stored up by the parent plant, to its further growth and evolution—was simultaneous with the decay of the parent plant.

Then, my observation had shown me that the old Chicago had stored up the means prior to its destruction, or death, by fire, not in material, but in its trade and commerce, to rebuild itself, partly from old, but mostly from new material, which were analogous precisely with the conditions for reproduction in the vegetable world.

With this information I returned to the human body, to inquire whether there was in it any like, or analogous, provision for converting food into living flesh, continuously, during the life of each individual. Would the law that the old stored up the force for its own reproduction from new material, apply to the human body? I concluded that it would, for the law seemed to be universal that the new must proceed from the old. To be applicable, then, to the human body, there must be an apparatus fitted by structure and distribution to separate the material in which the requisite force was stored up, from the general debris of the tissues, and restore it, or unite it, at a proper place and time, with new material, to the blood stream.

There is in the human body an elaborate and complicated apparatus, distributed to every part of it, to which no adequate function has, up to this time, been assigned by physiology, to wit, the lymphatic system. Economy of material, catching up that accidentally escaping from the blood vessels, was assigned as its chief function elsewhere than in the abdominal cavity. Here, though identical in histological structure, a different function was assigned, viz., to take up the products of digested food and convey them into the blood.

As such an arrangement, to wit, separate functions at different points, for identical structure, histologically, would be a violation of the laws prevailing elsewhere through organic life, accepted physiology in regard to the so-called lacteals and lymphatics was probably in error, and was, therefore, with the vital force set aside, and a uniform function attributed to the system throughout the

body; the largely increased volume of material found in the lymphatics or lacteals, during active digestion, due to increased waste of structure as a consequence of the increased duty performing, for here, as elsewhere throughout nature, organized and inorganic, function is performed at the expense of structure and structural arrangement of material.

Accepted physiology in regard to the entire digestive process, so called, is probably in a very incomplete condition. Admitting, for the moment, that the function of the lymphatic system is as here pointed out—and it corresponds in dignity with its histological structure and distribution, while the functions now attributed to it are sadly lacking in that respect—it becomes possible to trace food through its various stages and processes to living flesh more intelligently than through present physiological conceptions of function of the several parts concerned.

The food eaten by human beings is by chemistry arranged into a few groups of dissimilar chemical arrangement of material, viz., fibrins, albumens, gelatin, starch, fat, sugar, gum, etc., etc., from animal sources and vegetable seeds, and in a few instances the bodies of vegetable plants, in which some woody fibre and insoluble matters enter.

Now, it seems to me the sole function of the stomach is to effect solution of these "proximate principles" of animal and vegetable structures or materials. This is accomplished through several agencies, as pepsin, acids, etc., but mainly by water. When solution is effected, it is passed directly into the venous blood stream,* and goes forward to the liver. Here, some not well understood chemical changes occur, prominent among which is the transformation of starch into glucose. But, whatever they are, the result is sent forward to the right heart on its way to the lungs.

The stream pouring into the right heart—blood pump, simply—would therefore be thus complex:—

* Physiology acknowledges that a part of the material introduced into the stomach as food, pursues this path. My conclusions are, that all follow in the same way; and so rapid is the process of repair of wasted structures from new material, that a tired man's meal is partly in living structure before it is finished. And it is so also in sickness; proper food is rapidly disposed of in the same way. In many conditions of sickness—and that called phthisis, among them—this capacity is lost, from failure of the function of the lymphatic system in part.

1st. Old material—venous blood, from the debris of the tissues of all parts of the body.

2nd. New material, from food introduced into the stomach.

3rd. Lymph, containing the material in which the wasting structures have stored up the force for their own reproduction from new material.

In the lungs this complex stream meets the gaseous atmosphere, changes, not now understood in detail, take place, a certain proportion of effete material being detached, and making its exodus from the body at the mouth and nostrils.

The stream returning to the left heart differs chemically, and in physical appearance very widely, from the ingoing stream—arterial blood—the material in which is stored up the force for the reproduction of the momentarily wasting structures as function is performed. From the left heart it is distributed to the capillaries, the actual seats of molecular waste and repair. It seems to me that this synthetical tracery of food to living flesh points to the lungs as the actual seat of what is known as digestion, if that means the bulk of the chemical changes in food to fit it to become living flesh.

In good health we know nothing of our lymphatic system. And in sickness it has been little studied, except when there is palpable and visible modifications of its glandular structures. Scrofula is the general term expressive of these more obvious changes and failures of structure, confessedly conditions not much under remedial control; for not alone is the lymphatic system in disorder, but all the other structures, depending, as it seems to me they do, for their forms of structure and capacity for function in the general economy of each living body, on the lymph.

Viewed thus, to discuss the question of "the anatomical relations of tubercle to phthisis" in nature and essence, was an error, and could not by any possibility lead to other than negative results.

Certain other great general principles have been reached in my life-long investigations, which I formulate as follows:

1st. The main purpose of all life, animal and vegetable, in the general economy of nature, is its own preservation, reproduction, and multiplication.

All other phenomena are incidents only of this greater purpose.

Flowers, in the vegetable world, are only incidents of the formation of the seed. Intellectual phenomena in animal life are, in like manner, only incidents of the capacity, exercised or not, of self-reproduction and preservation; are not essential, are added, in virtue of "free moral agency;" and the structures on which they depend, not being essential to self-preservation, perish with each possessor, or leave only, or transmit only, increased "possibilities" of reproduction by processes known as "educational."

2nd. That for each special function performed, simple or complex, there is behind it, and on which it depends, special molecular arrangement of material; and as this special arrangement of material is modified, wholly changed, or rate of motion in its material advanced or retarded, function is correspondingly modified or lost.

3rd. That function is always, and under all circumstances, performed at the expense of special molecular arrangement of material, or structure.

This is the basis of all "diagnosis" in practice, not entirely empirical. Nosology and nomenclature for changed functions are the barriers which prevent the speedy attainment of the highest skill in "diagnosis," by the rank and file of the profession. Far too much attention is now given to naming things, and too little to ascertaining the reality of things, in sickness.

4th. That function is, in like manner, the index, language, or expression of molecular arrangement of material, or structure, from which it proceeds.

The vast quantities of material annually passed through the commercial channels of Chicago, which ultimately become animal structures, do not perform functions of life until they have been arranged in molecular forms of structure. Corn, oats and hay will not transfer merchandise, produce, or propel street cars, or any other actual functions performed by the various animals daily driven through its streets, until transformed into animal tissues. These materials may be burned in furnaces, producing, as the single phenomena of their combustion, the motion of matter called heat, which may be utilized by correlation in mechanical motion, but cannot be made in this way to perform the complex functions of animals.

So, automaton imitations may be and are made to move, produce sound, and imitate other phenomena of life, or living things, but

they lack both fitness and adaptability, and the capacity of self-perpetuation and reproduction from new material, of the realities of which they are merely outward resemblances.

5th. That new life always rises from among the *debris*, or decaying material of the old.

The physical appearances of material found in the lungs of persons dying from so-called phthisis, was a question of force, and not of the forms and colors of materials. In the condition thus designated, there is conspicuous failure, or waste of structure, without corresponding repair from new material, from, as I understand it, failure of the necessary modes of force. At the velocity of waste in what is called acute phthisis, the structures cannot, and do not, store up the force for their own reproduction from new material, as they decay in the performance of function. In chronic, so called, phthisis, the functions of the lymphatics probably fail first, in not making the necessary separation of the material from the general debris, in which is stored up the force for the reproduction of the wasting tissues. And as the force is increased, lessened or varied, so will the forms, colors and appearances of material vary, found on post mortem examinations; and be without constancy; as this debate of the Pathological Society so clearly demonstrated.

Cui bono? of all this, asks a veteran therapeutist, who never thinks of, or wants to know, anything else than that this or that drug, or medicine, or compound, is good for this or that disease, or class of so-called diseases.

Just this, I reply—the good that all truth does. The function I have assigned to the lymphatic system has much positive and more negative evidence in its support, besides harmonizing with all the facts of organic nature. Its tendency will be to render us all increasingly exact in our professional services to the sick. We can hardly fail to be wiser, and better fitted for our duties, the more intimately we become acquainted with the inner workings of our wonderful bodies.

ARTICLE IV—*Transactions of the Chicago Society of Physicians and Surgeons. Meeting of November* 10, 1873. Reported by PLYM. S. HAYES, M.D., Chicago.

This Society was organized after the fire for the benefit of physicians resident in the southern portion of the city; but has since added to its number those practicing in both the North and West Divisions, and has increased to such an extent that it was considered desirable to hold its meetings in a more central location. For this reason the meeting was called in the Grand Pacific Hotel.

The Society was called to order at 8 o'clock P. M., by the Vice-President, in the absence of the President, Dr. A. Fisher. There were forty present, including the President, Secretary, and several members of the Chicago Medical Society, and some representatives of the Illinois State Microscopical Society.

The Chairman of the committee on a permanent place of meeting, reported on the subject in full. This report was accepted the committee discharged, and further consideration of the subject deferred to the next regular meeting.

Dr. John Bartlett then read a paper entitled, "*On a Marsh Plant from the Mississippi River Ague Bottoms; with a consideration of its genetic relation to Malarial Diseases.*"

Dr. Bartlett then described a marsh plant, the growth of which he discovered to be simultaneous with the appearance of malarial fevers, containing cells of exceeding minuteness, which possessed the power of rapid multiplication. These had been detected by Dr. Bartlett, in his own blood, and in that of several ague patients; and had been seen by him multiplying with great rapidity, and producing products similar to those recognized as peculiar features of the plant, in the blood, the urine and the saliva. On the conclusion of the reading, the members of the Society and invited guests inspected the microscopic preparations, colored drawings of the plant, and specimens of the plants themselves, growing in their native soil, which were intended to illustrate the reading.

The Society then adjourned, to meet again in the Grand Pacific Hotel, November 24, 1873.

Selections.

A Case of General Paresis. By J. B. STONEHOUSE, JR., M.D., Assistant Physician Sanford Hall, Flushing, New York.

Certain diseases—which indeed properly belong to the domain of the specialist, but are in the earlier stages, when a proper appreciation of the symptoms is of the greatest importance, in the hands of the general practitioner—are seldom spoken of in the text-books or by the college instructors, while the medical journals only at wide intervals refer to them. One of these, general paresis, is peculiarly liable to a mistaken diagnosis, with the consequent damage to the patient's chances of recovery: especially is this the case when the paresis precedes the development of the *psychical* symptoms. A recent writer (Guy's Hospital Reports, 1870) argues that cases occur outside of the hospitals for the insane which deserve the title of general paresis as fully as those within. In accordance with this view, and with the hope of presenting to the readers of the *Practitioner* in a small space a general idea of the disease, with the views thereon of the recognized authorities, this article has been prepared. The case reported is one which was at no time in an asylum, and is therefore chosen for the text.

M. H., merchant, aged forty-three years, single, of good habits and of previous excellent health. The first symptoms observed by him, and for which he sought the advice of a physician, were a feeling of fullness of the head, with vertigo, an inability to perform any severe mental labor, and loss of memory. Two months later mental symptoms made their appearance. Patient declared he was not fitted for his business, and would ruin his partners. He said it had been decreed by Providence that he should fail if he continued in the business. After much deliberation he concluded to change his occupation, and selected the popular lecture-field for his future operations, expressing great faith in his oratorical powers, and displaying all that wonderful train of mental symptoms usual in the "*delire des grandeurs.*" Even while making these assertions a peculiar trembling of the lips, "as if about to burst into tears" (Maudsley,) often embarrassing his articulation very perceptibly, was noticed. This condition increased rapidly until he was unable to pronounce the *labials*. The right pupil was contracted;* paresis of the muscles of deglutition and expression soon took place; the use of the fingers, and later of the lower

* Hammond (Diseases of the Nervous System, page 369) quotes Austin (Pract. Acct. of General Paralysis, etc., London, 1859) as asserting that contraction of the right pupil is associated with melancholic delusions, and contraction of the left pupil with the more self-complacent fancies. This, however, cannot be supported.

extremities, became impaired. A failure of muscular power, with considerable spasmodic action after continued effort to grasp the instrument, was shown by the dynamometer. Muscles of the extremities responded to the electric stimulus. He was unable to dress himself without great effort. His gait at this time was very similar to that observed in cases of sclerosis of posterior columns of the spinal cord. A spasmodic action of the pulse (which varied from 90 to 100 per minute) was exhibited by the sphygmograph. Ophthalmic examination was made only during the first stages of the disease, without revealing any lesions of the optic nerve. No convulsions, comatose attacks, or maniacal exacerbations occurred during the course of the disease. From the end of the third month his mental powers steadily diminished into a condition of dementia. Urine and fæces passed involuntarily, and the patient would remain in contact with them until the sense of smell informed him of his condition. At this time there was anæsthesia of the greater portion of the cutaneous surface and of the mucous membranes, as far as could be noticed. This condition was not complete in the axillary and inguinal regions. Extreme loss of memory was observable. He seldom remembered an extravagant idea longer than the time occupied in uttering it. When asked his own name, in the later periods, he could not answer. During a brief absence of the nurse from the room death occurred from impaction of food in the fauces, owing to anæsthesia of these parts. From the appearance of the first symptoms to the day of death was five months and fifteen days.

Among the points of interest noticed in this case are the following:

1. The short duration of so typical a case. Hammond gives the average duration as three years.

2. The absence of any definite cause. The patient, as we have before stated, was a man of excellent habits. He was an active and consistent temperance man. An inquiry as to his past history revealed the fact that several years before the attack, during which time he enjoyed very good health, the patient had been severely mercurialized during a course of treatment for some liver trouble. Could this have produced a condition of the nervous system inviting the development of the disease?

Synonyms. General paresis, general paralysis of the insane, paresifying mental disease, paresis generalis, insania paresans, dementia paralytica, anoia paralytica, geisteskrankheit mit paralyse, paralysie generale, alienation ambitieuse avec paralysie incomplete, folie paralytique, delire des grandeurs.

As to the causation of general paralysis, no great certainty of opinion has been reached. Abuse of alcohol, the narcotics, etc., venereal excesses, and many other habits and conditions, have been charged with the production of this disease. Many cases occur,

however, which cannot be traced to this class of causes. The disease is comparatively rare among women. France gives a much larger proportion of cases than any other nation. Saloman ascribes to the female cases the depressed form of mental symptoms. In general paresis no order of symptoms is a typical one. The mental or physical symptoms may appear first, or they may be simultaneous. Parchappe reports that in eighty-six cases fifty-one were marked by the simultaneous appearance of the mental symptoms and paresis; in twenty-seven cases the paresis was subsequent, and in eight the precedence could not be determined. Leidesdorf relates the history of a case in which the earliest symptoms were spinal. On this point Maudsley says: "Before asserting in a particular case that there is no evidence of paralysis, it will be well to observe the patient when emotionally excited, or after a sleepless night; then there may be exhibited a tremulousness about his speech which is not at all visible when he is perfectly calm and collected." Forbes Winslow (Obscure Diseases of the Brain and Disorders of the Mind) says, speaking of the peculiar mental symptoms of the disease: "I have known the tendency to distort facts and look extravagantly at the bright side of everything through an intensely magnified and highly-colored, because morbid, medium to exist for five or even ten years before the mind presented any decided and recognized symptoms of alienation." M. Parchappe, in an address before the Medico-Psychological Society at Paris, 1858, says: "Mental disorder is constant from the first, at least under the form of impairment of the memory and judgment, and very frequently under that of maniacal or melancholic excitement."

The testimony of these quotations shows how difficult is not only the decision of the precedence of the symptoms, but also the diagnosis of the disease. The mental symptoms are ushered in by a stage of melancholia; but even this bears on the exaggeration of the *ego* — the patient is boastful of bodily ailments or persecutions. Gradually the ideas become more of the *ambitieux* type; an exaggeration of all that is favorable in the man or his life, and a new and falsely-colored representation of what is unworthy. With continued loss of memory we find a diminution in the coherence of ideas, until in the later stages there is observed merely the utterance of disconnected egotisms and optimisms. Finally, these psychical symptoms are not, according to some authorities, characteristic of the disease. M. Trelat (*Annales Medico-Psychologiques*, 1855) writes: "A great number of paralytics have no ideas of riches or greatness. There are some who, instead of being powerful, happy, and full of confidence, are timid, distrustful, and agitated by hypermaniacal ideas." M. Laseque (thesis on his examination for a fellowship, quoted by M. Arch Foville, Jr., *Quarterly Journal of Psychological Medicine*, New York, April, 1872,)

says, "the characteristic delirium may be wanting in spite of the intellectual disturbance." And again, M. Linas (quoted by the same authority) declares "he could not raise his voice too energetically against the opinion which assigns to general paralysis a definite delirium."

Among the first physical symptoms calling for medical treatment may be apoplectiform or epileptiform attacks and signs of cerebral congestion. The difficulties of articulation are usually among the earlier symptoms. Articulation becomes thick and labored, and loses distinctness and precision. Especial difficulty is experienced in the pronunciation of the labials. In the last stages "it consists only in the muttering of thick, indistinctly-articulated noises." Saloman (translated by Moore and quoted by Delaye) accounts for this condition by the "transient convulsive movements (involuntary spasms) of the muscles of the face, especially of the upper lip," and "fibrillar convulsions in the muscles of the tongue." The pathology of this condition is the implication of the anterior lobes in the degeneration, whether such changes be considered, with Parchappe, a cerebral softening (Medico-Psychological Society of Paris, 1858,) or Delaye, a molecular change of the cerebral tissue, especially of the gray substance (*De la paralysie generale incomplete, These de Paris*, 1822,) or Bayle, a meningitis (*Recherches sur les Maladies Mentales*, Paris, 1822,) or Behomme (quoted by Parchappe,) a meningo-cerebritis, or Calmeil, a chronic diffused perienceph alo-meningitis (*De la paralysie consideree chez les Alienes*, Paris, 1822.)

It is of importance to remember that the condition of the limbs is not one of palsy, where the muscles refuse to respond to the mandate of the nervous centres; but, as the late Dr. Skae, of the Morningside Asylum of Scotland, states it (*Edinburgh Medical Journal*, April, 1860,) "the volition is irregularly conveyed and distributed. The person cannot control and direct his movements perfectly and consentaneously, just as a drunken man sees double because he cannot converge upon a given object, or walks unsteadily because he cannot direct and regulate the harmonious movements of his limbs." Dr. Reynolds, in his treatise on wasting palsy, states the means of diagnosis between general paresis and wasting palsy to be that in general paresis the muscles respond to the electrical stimulus, and in wasting palsy they do not. The functions of sight and hearing are not in ordinary cases involved except in the last stages. Smell and taste are much oftener affected, so that, according to Saloman, "the patient submits to their operation the most loathsome things." Hallucinations (endogenous sensations) are not unfrequently met with in sight and hearing. Hyperæsthesia and anæsthesia of the skin and mucous membranes are occasional but not essential symptoms of the disease. M. Parchappe noticed a slight increase of the

frequency of the pulse in general paresis, although the disease, except accidentally in the state of congestion, is not accompanied by a true febrile movement. In the last stage, a condition called by M. Parchappe "cerebral marasmus," in which occur pyæmia, pneumonia, colliquative diarrhœa, gangrenous destruction of tissue from effects of pressure, terminates the sad history. All these symptoms are subject to ameliorations, which to the inexperienced lend false hopes of recovery.

The prognosis is always *unfavorable.* Parchappe says: "I have not obtained a single positive and certain cure." Dr. G. Mackenzie Bacon (*Journal of Mental Science*, London, July, 1871,) declares: "Whatever the hopes of the therapeutics of the future, I can see no reason to wander through the pharmacopœia in search of a drug to cure a disease which depends essentially on structural changes, when we know that these, at least in the brain, are not remedied by medicines."

In the treatment of general paresis, tonics and stimulants are always of use, with sedatives or narcotics when necessary.

Parchappe, as a fair exponent of the French alienists, says of the pathology of the disease: "In the majority of cases the softening (which he considers the characteristic lesion) is found at the surface on the free margin of the convolutions. At a later period it often attacks the gray matter of the corpora striata, optic thalami, medulla spinalis, and cerebellum. Mental disorder, under the form of mania or melancholia, coincides with the superficial alteration of the cortical substance; the paresis and dementia are connected with the deeper alterations, the difficulty of speech with the lesion of the anterior lobes. A greater degree of softening is often found on one side, then the paresis is more determined on the other." In America the only investigations of importance have been begun at the New York State Asylum, by its special pathologist, Dr. E. R. Hun, of Albany, N. Y. In his last report he speaks of the autopsies in cases of general paresis: "Of the eight cases of general paresis six were men and two women, the oldest sixty-four and the youngest thirty-three years of age. In five cases there were eschars or ill-conditioned ulcers observed upon the surface of the body; the skull-cap was unusually thick in four cases; the membranes were adherent to each other in four cases; the arachnoid opaque in four and congested in one; a considerable amount of sub-arachnoid serous effusion was noticed in seven of the eight cases, and in two cases clots of blood were found upon the surface of the brain. In six of the eight cases there was more or less atrophy of the cerebral convolutions, and in one case embolism of the middle cerebral artery was accompanied by softening of the hemispheres. In this case two small cysts, filled with clear serous fluid, were found encroaching upon the brain substance. The weight of the encephalic mass (including

cerebrum, cerebellum, pons, and medulla) was taken in three cases; the heaviest weighed 48¼ ounces and the lightest 35¼ ounces, the average weight being 43⅜ ounces. In five of the cases there was existing tubercular disease, or evidences that such disease had formerly existed, as shown by cicatrices and cretaceous deposits in the lungs. In one case ossification of the mitral valve was found, and in three was marked deflection of the transverse colon toward the symphysis pubis."—*Am. Practitioner.*

Editors' Book Table.

[NOTE. — All works reviewed in the columns of the CHICAGO MEDICAL JOURNAL may be found in the extensive stock of W. B. KEEN, COOKE & Co., whose catalogue of Medical Books will be sent to any address upon request.]

BOOKS RECEIVED.

The Diseases of the Prostate, their Pathology and Treatment, comprising the Jacksonian Prize Essay for the Year 1860. By SIR HENRY THOMPSON, F.R.C.S., Surgeon Extraordinary to H. M. the King of the Belgians, etc., etc. Fourth Edition. Philadelphia: Henry C. Lea. 1873.

The republication in America of this, the fourth, edition of Sir Henry Thompson's valuable monograph, cannot fail to be welcomed by the practitioner solicitous for the cultivation of accurate diagnosis in this much neglected field of pathology. The literature of this department of practice may have been hitherto represented by a blank. This vacuum no longer exists, and the practitioner seeking instruction in examination and treatment of prostatic disease, at this day of such frequent occurrence, will find in this little work a mass of clinical data collated with judgment, of propositions rationally sustained, and of conclusions logically deduced. The pathological parallelism between prostatic and uterine disease, deduced from anatomical homologies, so singularly ignored by the vast majority of practitioners, is clearly and satisfactorily established. Embodied in the work are valuable intructions upon catheterism and upon vesical injections. The book is a condensed summary of the state of our knowledge of the disease down to the present day, derived not only from the

author's extended field of observation, but from the literature of the science. H.

Clinical Electro-Therapeutics, Medical and Surgical. A Hand Book for Physicians in the Treatment of Nervous and other Diseases. By ALLAN MCLANE HAMILTON, M.D., Physician in charge of the New York State Hospital for Diseases of the Nervous System, etc., etc. New York: D. Appleton & Co., 549 and 551 Broadway. 1873.

One of the most intelligible books upon the subject, in the language. The subject of electro-therapeutics may be said to have entered upon a new era in its history, the era of scientific investigation and logical analysis. After having for so many years constituted the stock in trade of itinerant charlatans, it seems now about to be rescued from their hands, and destined to prove the grand resource against so many of the *opprobria medicorum* which still cumber the catalogue of nervous diseases. Every effort to bring this powerful agent, electricity, within the reach of general practitioners, and reduce its operations to limits of laws, and to determine the principles of their action, deserves commendation. This appears to have been the aim of the author of this little treatise, and he has certainly attained more nearly the accomplishment of his object than any one who has preceded him.

Without attempting to exhaust his subject, or the patience of his readers, he has given us a practical manual, which can be made useful by any tyro acquainted merely with the rudiments of the science. H.

Hand Book of Physiology. By WILLIAM SENHOUSE KIRKES, M.D. Edited by W. MORRANT BAKER, F.R.C.S.E., etc.; with two hundred and forty illustrations. A New American, from the Eighth enlarged English Edition. Philadelphia: Henry C. Lea. 1873.

"*Vox Populi, Vox Dei,*" says the old proverb, and proverbs, if not all fact, are at least "founded on fact." When the demand for a book has been so great as to rapidly exhaust eight editions, criticism is superfluous. The profession at large has already recorded in the most practical form its favorable criticism upon the work, and it only remains for us to say to the small remainder of our readers who have not yet possessed themselves of the book, that

we most heartily endorse the public verdict, that it is the most useful handbook of physiology accessible to the American practitioner, and feel assured that when they have read it for themselves, they will thank us for calling their attention to it. H.

The Principles and Practice of Medical Jurisprudence. By ALFRED SWAYNE TAYLOR, M.D., F.R.S., Fellow of the Royal College of Physicians, Lecturer on Medical Jurisprudence in Guy's Hospital. Second Edition. 2 vols. Philadelphia: Henry C. Lea. 1873.

In the November number of the JOURNAL we took occasion to call the attention of the profession to the Manual of Medical Jurisprudence by the same author, and published by the same house, as the truly great work now before us. We have little to add in commendation of this, to what has been already said of the Manual, beyond putting our expressions relative to that in superlatives. The Manual contains enough and more than enough to supply the professional needs of the general practitioner; but the complete work now before us will prove to the expert a perfect mine of wealth, in which he may delve most laboriously without fear of exhausting its treasures. The publisher, in giving this work to the profession so soon after the publication of the Manual, has given practical expression to his confidence in the intellectual appreciation of American physicians and jurists, which they should not be slow to justify. The subject matter of this work seems to be brought down literally to the present day. H.

Treatise on the Diseases of the Eye, including the Anatomy of the Organ. By CARL STELLWAG, (von Carion), Professor of Ophthalmology in the Imperial Royal University of Vienna. Translated from the fourth German edition, by D. B. ST. JOHN ROOSA, M.D., Clinical Professor of Diseases of the Eye and Ear, in the University of the City of New York, etc., etc.; CHAS. S. BULL, M.D., formerly Assistant Surgeon to the Manhattan Eye and Ear Hospital, etc., etc.; CHAS. E. HACKLEY, M.D., Clinical Professor of Diseases of the Eye and Ear, etc., etc. Fourth Revised and Enlarged Edition. Illustrated by wood engravings and chromo-lithographs. New York: William Wood & Co. 1873.

The world-wide reputation of the author of this work, together with the merited claims to distinction in the specialty of which it

treats, enjoyed by its American editors, should earn for it the same welcome reception accorded to the first American edition. One must use much diligence indeed to find occasion for adverse criticism, notwithstanding the magnitude of the work, and the encyclopædic scope of its contents. The science of ophthalmology seems to be exhausted down to the present day to fill its pages; and the propositions advanced in the work, whether of diagnosis, pathology or therapeutics, appear to be well sustained by authorities, which are quoted, not generally, but specifically and distinctly. The work, as a whole, constitutes a most valuable addition to the library of American practitioners, few of whom are sufficiently versed in the subjects of which it treats, to enable them to dispense with the aid of an expert, even in cases involving some of the simplest forms of disease of the eyes. H.

A Practical Treatise on Diseases of the Ear, including the Anatomy of the Organ. By D. B. St. John Roosa, M.A., M.D., Professor of Diseases of the Eye and Ear in the University of the City of New York, etc., etc. Illustrated by wood engravings and chromo-lithographs. New York: William Wood & Company. 1873.

The author of the work before us may be truthfully called one of the pioneers of the science and art of otology in America, for it was through his translation of Von Troltsch on the Ear, published about ten years ago, that the attention of the profession in general may be said to have been first attracted to this important class of diseases. The plan of the work is very comprehensive, and the details admirably extended. Beginning with a sketch of the history of otology from the very earliest ages down to the present day, the author proceeds to an epitome of the bibliography of the science, and next, to an admirable dissertation on the anatomy of the external portion of the organ, which is illustrated by a series of the best wood cuts with which we have yet been favored. The instructions for the examination of patients are well drawn and clear, and are followed by descriptions of the diseases of this portion of the ear. The middle and internal ear are considered in their order in a similar manner, the whole concluding with some very instructive remarks on deaf-muteism and on the use of ear trumpets. The chromo-lithographic illustrations of the various forms of tympanic diseases are the best we have ever seen. There is scarcely a practitioner

who is not often consulted in regard to aural diseases about which he knows nothing whatever, his therapeutical range being limited to local applications to the meatus externus. The careful study of this work will enable him to treat successfully many of the simpler forms of aural diseases without the aid of the generally inaccessible expert or the omnipresent charlatan. H.

A Treatise on the Diseases of the Eye. By J. SOELBERG WELLS, F.R.C.S., Doctor of Medicine of the University of Edinburgh, etc., etc., etc. Second American, from the third English Edition, with additions; illustrated with two hundred and forty-eight engravings on wood, and six colored plates, etc., etc. Philadelphia: Henry C. Lea. 1873.

Coincidently with the appearance of the great work of Stellwag Von Carion, bearing the "imprimatur" of W. Wood & Co., of New York, appears this splendid addition to ophthalmological literature from the press of Henry C. Lea, of Philadelphia.

Had we to choose between the two, we fear that we should find ourselves in the predicament of the fabled ass between the bundles of hay, and should certainly take both. Had we seen but one, we should certainly have considered it the most valuable compendium of ophthalmology in the English language, but with both before us we say most heartily to our readers, buy both, read both, and you will have learned more of the diseases of the eye than you ever knew before. H.

Transactions of the American Medical Association. Vol. 24. 1873.

The present volume of the "Transactions" is about up to the average, possessing, however, some points of unusual interest, in the statistical tables of Medical Societies and of Hospitals in the United States, and in its Necrological Report. The "address" of the President has been so thoroughly criticized that we will not attempt it, satisfied that we could not do justice to the subject; it certainly has the merit of originality, the style being imitated from no classic model, either ancient or modern, with which we are acquainted. In fact, "none but itself could be its parallel."

The instructions to the publishing committee concerning the disclaimer of responsibility for the views and opinions expressed in the various papers comprising its Transactions, and published under its authority, were wise and prudent in the highest degree.

Would it not be well to appoint, at the next meeting, a committee to compile and publish, in cheap duodecimo, a detailed history of what the American Medical Association has accomplished for the profession or for science? H.

Editorial.

Historical Memoranda of this Journal.

The first number of this JOURNAL was issued in April, 1844, with Prof. Jas. V. Z. Blaney as editor, and entitled *The Illinois and Indiana Medical and Surgical Journal.* The first paragraph of Dr. Blaney's Introductory we reproduce:

"It is with pleasure, if not with pride, that we announce to the medical public the first number of the first Medical Journal that has been issued in the State of Illinois. Such an announcement may, perhaps, by some be thought premature. So indeed did it appear to us when our attention was first called to the subject. More mature reflection, however, convinced us that such an opinion was erroneous; and that it is so, must appear to all who will consider the condition of the medical profession of the West—their distance from the sources of improvement and from each other, and the necessity of disabusing public opinion of the impositions of empirics, for the spread of whose doctrines new countries afford peculiar facilities."

Those were the days when there were no railroads "out West," and the editor announced that his periodical "would be read in portions of the West almost inaccessible to the rest," and this proved true.

It started as a sixteen-page pamphlet, but of the same shape it has ever since retained. Among the prominent contributors to the first volume we notice Daniel Brainard, Wm. B. Herrick, John Evans, John McLean, Graham N. Fitch, Daniel Meeker, Austin Flint, J. H. Bird, with others whose names have since become widely known to the profession.

In 1846, the unfortunate idea of a "New Series" was first adopted, Drs. Brainard, Herrick and Evans becoming associated with Dr. Blaney as editors. The April number of 1846 was numbered Volume 1, New Series. The volume was issued in bi-monthly numbers of 96 pages each.

The same conduct and issue was continued until April, 1848, when Drs. Herrick and Evans took the editorial control alone, and the name was changed to the *Northwestern Medical and Surgical Journal.*

At the commencement of the next volume, for 1849 and 1850, Dr. Edwin G. Meek took the place of Dr. Herrick.

In May, 1851, Dr. Evans took the sole editorship.

May, 1852, Drs. W. B. Herrick and H. A. Johnson accepted the editorial tripod together.

In 1853, the volume, which had previously extended until May, was closed at December, and since that time the initial number has been issued in January.

The title page of our copy of the JOURNAL for 1854 is wanting, but in the text we find the name of Dr. N. S. Davis as editor, and from the frequent presence of the initial J. we think Dr. Johnson was still acting in the editorial capacity. This was clearly the case in 1855, numbered "Vol. IV, New Series;" so, also, in 1856, but in 1857 Dr. Johnson retired, leaving Dr. Davis sole editor.

In 1858, Dr. W. H. Byford became his associate, and the name was very properly changed to "Chicago Medical Journal," but, unfortunately, another "New Series" commenced with this as Volume I.

In 1859, Daniel Brainard again took the editorial pen, with Drs. W. Godfrey Dyas and Edwin Powell as associates.

In 1860, Drs. Dyas and Powell were replaced by Ephraim Ingals, and we find on the title page, "Vol. 3, New Series; Whole Series, Vol. 17."

In 1861, Dr. J. Adams Allen took the place of Dr. Ingals, and Dr. Brainard retained but a nominal connection.

In 1864, DeLaskie Miller, M.D., and Ephraim Ingals, M.D., assumed the control, continuing through that year and 1865.

In 1866, Drs. E. L. Holmes, R. M. Lackey and Henry M. Lyman, took joint and several possession of the quills, but did not murmur when, in 1867, the present senior editor (Dr. Allen) resumed his seat in the *sanctum*, "solitary and alone."

In 1868, the experiment of issuing in semi-monthly parts was inaugurated, and for a time promised well—indeed, that year and the first half of the next were seasons of the highest prosperity for the JOURNAL. Unhappily, a change of publishers brought "a

chilling frost." *De mortuis nil*, etc. But it is due to the living to say that the temporary publisher, having secured all the accounts and books of the JOURNAL, harassed those in arrears for subscriptions and advertisements, used the editor's name everywhere most unwarrantably, ran in debt for about all the printing that was done, delayed the publication most grossly, and, to make a long story short, after defaulting to the editor several thousands of dollars and endangering the very life of the JOURNAL, left the State and ultimately hung himself in St. Louis.

But after a short vacation the present publishers were engaged, and with the brief exception of the fire months, when our mail book and everything else was destroyed, everything has moved on with all the precision of machinery, and we do not hesitate to say that the handsomest medical journal the country affords has been presented to its readers. Of its contents it need only be said: Let the reader mark, learn and inwardly digest them, and he will be profited thereby.

In 1869 the senior editor associated with himself Walter Hay, M.D., whose work is everywhere to be seen on the pages of the JOURNAL, and who now adds largely to its value by assuming the laboring oar. A.

We take great pleasure in announcing to our readers, that the paper of Dr. Bartlett, upon the relations of certain microscopic spores found in the Mississippi bottoms, to malarial fevers, which is referred to in the proceedings of the Society of Physicians and Surgeons published in the current No., will constitute the leading article in the January No. of the JOURNAL for 1874.

The author of this paper has expended many months of patient labor and careful experiment upon the subject comprised in his treatise.

To those who know Dr. B., it is unnecessary for us to guarantee the honesty and fidelity of the work which he has accomplished. To those who do not, we feel sure that the narration of his experiments will carry with it the evidences of both. The paper will be inaccessible except to readers of the JOURNAL. H.

The Chicago Medical Examiner, of Nov. 15, contains a very apt editorial upon the subject of "Medical Books as Advertisements for

their Authors," which seems to bear internal evidences of having been written *at* a particular individual. Had we space to spare, we would take pleasure in copying it in full for the benefit of some of our older readers, who would appreciate it as it deserves. But pledged as we are to avoid personalities, we refrain. In his narration of the various forms which the "advertising dodge" assumes, the editor omits two which have come within our personal observation, *i. e.*, publishing the author's autobiography illustrated with portrait, of which we have seen nearly a quarter of a cord of unsold copies; the other is, trying to sell an unsaleable book after its condemnation by reviewers, at a reduced price. We hope the editor will continue to show up all such shams, and wish him most cordially "more point to his pencil."

With the current No., the JOURNAL closes the thirtieth year of its life. To us, one of the most satisfactory of all, and to our readers we believe not less so, if such conclusion may be legitimate from the substantial tokens of approval which they have tendered it. For that approval, together with the advancement of medical science, and the elevation of the standard of medical journalism, we have labored assiduously, conscious that to merit the former, we must, to some degree, accomplish the latter.

It is not alone in tokens of approval such as these that we find our greatest source of congratulation, but in the hearty spirit of co-operation with which our correspondents have lightened the editorial burthen, in contributing to the JOURNAL original articles rapidly increasing in number and value. For those accepted and published we return our thanks, and at the same time regret the necessity which has compelled us to decline others. We have now on file a number of valuable communications which will appear early in 1874, and are well worthy of careful study.

But with all these sources of congratulation and hope, we cannot, in laying down, for this year, the editorial pencil, now well-nigh worn to a stump, refrain from quoting one of the chrysostoms of English literature, knowing well that, "to innumerable readers this is a satisfying consummation; that innumerable readers consider us during these current months, but as an uneasy interruption to their ways of thought and digestion, not without a certain

irritancy and even spoken invective. For which, as for other mercies, ought he not to thank the Upper Powers? To one and all of you, O irritated readers, we, with open heart and outstretched arms, will wave a kind farewell.

> "Ring out the old, ring in the new,
> * * * * * *
> The year is going, let him go;
> Ring out the false, ring in the true!"

H.

"Brown-Sequard's and Seguin's Journal,

> '*The Archives of Scientific and Practical Medicine*,' ceases with the Nov. (the sixth) number. Too much nerve force and too high temperature for this climate."—*Clinic*, *Nov.* 1.

"'Tis true, 'tis pity, and pity 'tis, 'tis true." As somebody said about facts, so much the worse for the climate. It furnishes a sad commentary upon the educational necessities of the profession, who write to medical editors, who venture to furnish only occasionally a scientific article, for "something lighter," and who utterly refuse to support one who makes his journal the medium of scientific culture alone.

We hailed the first No. of the *Archives of Scientific and Practical Medicine* with joy, as supplying a great void in American medical literature. We forwarded the subscription price at once with pleasure, and have read every number with gratification. We cannot complain of having lost any "nerve force" in its perusal, and have rather luxuriated in what the *Clinic* calls the "high temperature," as supplying a delightful change from the "heavy wet" of many of our cotemporaries.

At the funeral of the "*Archives*," we wish to be counted in as "mourners," and yet while we mourn, it is not without hope, and we sincerely pray *ut resurget*. H.

Publishers' Notice.

In forwarding the present No. of the JOURNAL to our subscribers of the year 1873, we desire that the expression of our gratitude for their kind patronage should accompany it. At the beginning of the current year, we congratulated ourselves upon the pleasant auspices under which the new year was commenced, and the

assurances which we felt enabled to make to our readers that the JOURNAL should be more than ever worthy of their patronage.

That the first have been realized we are assured by our cash balance. The fulfillment of the latter is confirmed by our rapidly increasing subscription list.

The condition and prospects of the JOURNAL have never been so prosperous and flattering as now, and we feel justified in renewing our promises of the past year with even greater assurance of our ability to fulfill them.

The JOURNAL has been brought to its present prosperous condition only by maintaining inflexibly our rule to furnish it to advance subscribers alone. We are thus enabled to return to them the full value of their subscription, without the necessity of "watering the stock."

The January No., therefore, will be sent only to those who remit the subscription price in advance.

A Bill to Promote the Science of Medicine and Surgery in the State of Illinois.

SECTION 1. It shall be lawful in cities and counties whose population exceeds twenty thousand inhabitants, for superintendents of penitentiaries, wardens of poorhouses, coroners and city undertakers, to deliver to the professors and teachers in medical colleges and schools in this State, and for professors and teachers to receive, the remains or body of any deceased person, for purposes of medical and surgical study: *provided*, that said remains shall not have been regularly interred, and shall not have been desired for interment by any relative or friend of said deceased, within twenty-four hours after death: *provided, also*, that the remains of no person who may be known to have relatives or friends shall be so delivered or received without the consent of said relatives or friends: *and provided*, that the remains of no one detained for debt, or as a witness, or on suspicion of crime, or of any traveler, or of any person who shall have expressed a desire in his or her last sickness that his or her body may be interred, shall be delivered or received as aforesaid, but shall be buried in the usual manner: *and provided, also*, that in case the remains of any person so delivered or received shall be subsequently claimed by any surviving relative or friend, they shall be given up to said relative or friend for interment.

SEC. 2. And it shall be the duty of the said professors and teachers decently to bury in some public cemetery, the remains of all bodies after they shall have answered the purposes of study as aforesaid; and for any neglect or violation of the provisions of this act, the party so neglecting shall forfeit and pay a penalty of not less than twenty-five nor more than fifty dollars, to be sued for by the health officers of said cities, or other places, for the benefit of their department.

SEC. 3. The remains or bodies of said persons as may be so received by the professors and teachers, as aforesaid, shall be used for the purposes of medical and surgical study alone, and in this State only; and whoever shall use such remains for any other purpose, or shall remove such remains beyond the limits

of this State, or in any manner traffic in the same, shall be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding one year in a county jail.

SEC. 4. Every person who shall deliver up the remains of any deceased person in violation of, or contrary to, any or all of the provisions contained in the first section of this act, and every person who shall receive said remains, knowing the same to have been delivered contrary to any of the provisions of said section, shall each and every of them be deemed guilty of a misdemeanor, and shall, on conviction, be imprisoned for a term not exceeding two years in a county jail.

The above bill passed the lower house of the Illinois Legislature at its last session, and was introduced into the Senate, where those having it in charge found its defeat inevitable, owing to the absence of a number of Senators favoring the bill. It was, on motion, re-referred to the committee, and so stands for action by the adjourned session of the Legislature, which meets in January next. It passed the House by the flattering majority of 102 to 31, which gave confidence to its friends that the dark days for Anatomy had passed. The object of this communication is to appeal to every Alumnus of Rush Medical College, as well as every member of our profession in this State, to make a personal effort to secure its passage. It can be done by a united effort, brought to bear on every Senator in the State. Make this a personal matter, and *attend to it at once.* Not only use your own influence, but bring every other person's you can to bear on it, in its favor. Obtain a pledge to vote for it; or, if you cannot do that, after exhausting your best efforts, at least get them to promise *not to vote against it.*

The arguments for it need not be suggested to you, especially those who have risked their lives and liberty obtaining knowledge it were a crime against man and the State to be without. The bill is as unobjectionable as it is possible to make one of its kind, and I think, by a concentrated and determined effort made on our law-givers, we will succeed in obtaining this indispensable part of successful medical teaching, as well as rid our statute books of one of the disgraces of civilization. "Boys, help us."

R. L. REA.

Reports of Societies.

Woodford Co. Medical Association.

This Association held its fall session in Edmund Burke Hall, Eureka, on Tuesday, October 21st, and was called to order at 2 o'clock by Dr. D. W. Lamme, President.

After the usual routine of business, Dr. J. S. Whitmire, from the Committee on Medical Education, made a report.

CLINICAL EXAMINATIONS.

A large number of patients from different parts of the county had gathered, to be examined and prescribed for. This has proved to be a very interesting and profitable diversion in the exercises of the Association. Dr. J. S. Whitmire was appointed Master of Clinics, and Dr. G. F. Roberts, of Lacon, Assistant. Among the cases presented was a boy, some twelve years old, with extrophy of the bladder.

The Board of Censors presented the names of Drs. Robert G. Allen, G. Newkirk, and D. Slemmens, and on motion they were duly elected members.

Dr. J. S. Whitmire read a paper on "Criminal Abortion." And on motion the doctor was requested to have the same published in the CHICAGO MEDICAL JOURNAL.

The President, Dr. Lamme, read from his clinical notes, a detailed description of two cases of obstruction of the bowels, occurring in his practice.

Clinical reports were also made by Drs. N. B. Crawford, J. S. Whitmire, A. H. Kinnear, and G. Newkirk.

Prof. B. J. Radford, of Eureka College, was unanimously made an honorary member of the Association.

By invitation the Association voted to meet the Marshall County Medical Society in joint session, at Wenona, on the first Tuesday in January.

Prof. B. J. Radford delivered a popular lecture in the evening to a large audience, composed of the Professors, students of the college, and citizens in general, in addition to the members of the Association. Subject, "Life and its Preservation."

This Association was organized in October, 1870; and though quite small in numbers in the beginning, it has steadily grown, till now it numbers over thirty active members. Real evidence of a primary medical education from a reputable school, and a good moral and professional standing, *must* be given.

FREDERICK COLE, M.D., *Secretary.*

El Paso, Ill., October, 1873.

Obituary.

Wells Ransom Marsh, A.M., M.D., died October 15th, 1873, at Crystal Springs, Yates county, New York, of *Pneumonia Gangrenosa.*

Dr. Marsh was born in Townshend, Vermont, A. D. 1826. The family migrated to Kalamazoo, Michigan, in 1833, being among the pioneers of that section of the State. Developing a strong taste for study, the subject of our sketch entered the University at Ann Arbor, and graduated with honor in 1848. He subsequently received the degree of A.M. from the same institution. He attended medical lectures at the Indiana Medical College, and then located at Laporte, having the diploma of M.D. granted him at the last session of the college in that place.

After practicing his profession for several years in Kalamazoo, he was solicited, in connection with his brother, Charles P. Marsh, M.D., to take professional charge of the large colony of Hollanders who, under the care of the Rev. A. C. Van Raalte, located at Holland and its vicinity, on the eastern shore of Lake Michigan. Probably no severer, more arduous or harassing toil ever fell to the lot of two physicians, than this position imposed on the brothers Marsh. The sole medical, surgical and obstetrical charge of some six thousand persons, suddenly collected in what was then an unbroken forest, devolved upon them. With what untiring assiduity, sleepless care and conscientious zeal the brothers discharged their duty there, none but those personally cognizant of the facts can appreciate. The feeble colony has become a prosperous and wealthy community, as it always was an industrious and intelligent one, and no hearts and memories will be filled with sincerer grateful recollections, and more lasting reminiscences of respect and love, than theirs at the mention of the names of the Drs. Marsh.

In 1856, the subject of this notice received the appointment of Professor of Chemistry and Materia Medica in the Medical College at Keokuk, Iowa, a chair which he filled until the beginning of the late war, when he entered the service as Surgeon of the 2d Iowa Volunteers, under the first three months call, being thus the second in point of seniority of the volunteer surgeons of that State, and at the time of being mustered out in 1865, he ranked as oldest in commission of the volunteer surgeons of the West. During the entire war, except when temporarily disabled by sickness, he was in the most active service, being present at nearly all the principal skirmishes, great battles,

and severest marches and expeditions from Belmont and Fort Donaldson to Atlanta and Savannah, then through the Carolinas, to Richmond, Washington, and "home again."

Enfeebled in health and broken in constitution, by the continuous hardships to which his campaign life had subjected him, "when the cruel war was over" he settled for practice in Chicago, where he rapidly gained friends and the respect of his professional acquaintances. But the worn and disabled physical part refused to rally, and some two years since he went East, if possible, to recuperate. Whilst there he accepted the sanitary charge of the Crystal Springs establishment, and not only won the hearts of his immediate patients, but was fast gaining the confidence of the physicians in the country about, by whom he was frequently consulted. Here he was suddenly struck down by the disease which his shattered constitution, although for a long period it had been most cautiously cared for, could not resist.

In person Dr. Marsh was of commanding figure, about six feet and an inch in height, well and symmetrically proportioned, straight as an arrow, black hair and keen black eyes. Fluent in conversation, quick to discern and ready in response, he was always the life of the circle where he was present. As a practitioner he was far above the average—an excellent diagnostician, usually a very cautious, but on occasion a bold therapeutist or operator. As a lecturer he was characterized by his thorough command of the subject, his obviously earnest desire that the student should understand his teachings, and by his cultivated, scholarly style of discourse.

Dr. Marsh acted for some time as editor of the Keokuk (Iowa) *Medical Journal*, and has contributed valuable papers to other periodicals. A report from his pen on the cholera in Chicago, in 1866, was read at the annual meeting of the Illinois State Medical Society at Springfield, in 1867, and will be remembered as an important contribution to the literature of the subject.

He leaves, besides a large circle of relatives and friends, a wife and four children to mourn his loss.